Electronic Patent Application Fee Transmittal						
Application Number:	application Number:					
Filing Date:						
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				ACT IN A VIRTUAL	
First Named Inventor/Applicant Name:	Dave Leahy					
Filer:	Anatoly Weiser.					
Attorney Docket Number:	AP019CON3					
Filed as Small Entity						
Utility under 35 USC 111(a) Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Utility filing Fee (Electronic filing)		4011	1	82	82	
Utility Search Fee		2111	1	270	270	
Utility Examination Fee		2311	1	110	110	
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Petition fee- 37 CFR 1.17(g) (Group II)		1463	1	200	200	

1

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	662

Electronic Ack	knowledgement Receipt
EFS ID:	4994356
Application Number:	12406968
International Application Number:	
Confirmation Number:	6412
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE
First Named Inventor/Applicant Name:	Dave Leahy
Customer Number:	35070
Filer:	Anatoly Weiser.
Filer Authorized By:	
Attorney Docket Number:	AP019CON3
Receipt Date:	19-MAR-2009
Filing Date:	
Time Stamp:	01:37:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$662
RAM confirmation Number	6466
Deposit Account	503196
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)

Document			File Size(Bytes)/	Multi	Pages
Number	Document Description	File Name	Message Digest	Part /.zip	(if appl.
1	Preliminary Amendment	AmendmentPreliminary-Image.	761720	no	9
·	,,,	pdf	0424bfc1e857672985396f31bd032713eb4 458d2		-
Warnings:					
Information:					
2	Petition for review by the Office of	Petition Re Absent Inventor Plus P et it ion From Grandparent-	2013749	no	5
	Petitions.	lmage.pdf	95f886115779dbe9f7734ebc95620008298 68add		_
Warnings:					
Information:					
3	Assignee showing of ownership per 37	Rule 3 dot 73 b Statement-Image.	356678	no	1
J	CFR 3.73(b).	pdf	097c812e8abe8905655b572e74dc7654763 def48		ı
Warnings:					
Information:					
4	Oath or Declaration filed	Declaration From Parent-Image.	759851	no	4
4	Oath of Declaration flied	pdf a17:03:	a17c033e01002f886be1f4cf606b98a31080 5112		
Warnings:					
Information:					
5		Application Image adf	11306775	Vos	41
3		Application-Image.pdf	3740e051516c4138e8b229220b8bd7ac8fb 48427	yes	
	Multip	art Description/PDF files in .	zip description		
	Document Des	scription	Start	Er	nd
					_
	Specificati	ion	1	2	8
	Appendix to the S	pecification	29	3	3
	Claims		34	3	5
	Abstrac	t	36	3	6
	Drawings-only black and v	white line drawings	37	4	.1
Warnings:			<u> </u>		
Information:					
			36883		
	Fee Worksheet (PTO-06)	fee-info.pdf		no	2
6	ree worksheet (170 00)	•	e712adf8accc743af1629f31d806f1a6214c6 516		

Information:	
Total Files Size (in bytes):	15235656

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: To Be Assigned

Filed: January 13, 2009

For: SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit:

To Be Assigned

Examiner:

To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.:

Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PETITION BY ASSIGNEE FOR FILING PATENT APPLICATION UNDER 37 C.F.R. § 1.47(a)

The above-referenced application is filed herewith with signed § 1.63 declarations (from the original utility parent application) of three of the four joint inventors. The remaining joint inventor, S. [Mitra] Ardon, refuses to sign a § 1.63 declaration, notwithstanding the fact that he is under an obligation to do so at the request of the Assignee of the signing inventors' interests, Worlds Inc. ("Worlds"). Therefore, Worlds petitions that it be allowed to proceed with prosecution of this application without Mr. Ardon's signature, as allowed under 37 CFR §1.47. The reasons are fully set

ELECTRONIC FILING

Transmitted electronically to the Patent and Trademark Office.

Depositor's Name: Anatoly S. Weiser

Date: January 13, 2009

Signature: /Anatoly S, Weiser/

AP 019CON3

Patent

forth in the analogous petition filed in August of 2000 in the parent application serial number

08/747,420; and in the analogous petition of November 2, 2006, in the parent application serial

number 11/591,878. Both petitions in the parent applications were granted or entered, and Assignee

requests Official Notice to be taken of those petitions and the decisions thereon.

Payment of the petition fee under 37 C.F.R. 1.17(g) is made together with the filing of the

present petition, and any shortfall is also authorized to be charged to Deposit Account Number 50-

3196.

Respectfully submitted,

Dated: March 18, 2009

/Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229 3525 Del Mar Heights Road, #295

San Diego, CA 92130

(858) 720-9431

2

7

Paper No. 29

TOWNSEND & TOWNSEND & CREW 8TH FLOOR TWO EMBARCADERO CENTER SAN FRANCISCO, CA 94111-3834

COPY MAILED

SEP 1 9 2000

SPECIAL PROGRAMS OFFICE DAC FOR PATENTS

In re Application of Leahy, Challinger, Adler, and Ardon Application No. 08/747,420 Filed: 12 November, 1996 Attorney Docket No. 17376-5

: DECISION ACCORDING STATUS : UNDER 37 CFR 1.47(a)

This is in response to the renewed petition under 37 CFR 1.47(a)¹ filed on 7 and supplemented by facsimile on 18 August, 2000.

The petition is **GRANTED**.

Petitioner has shown that the non-signing inventor has refused to join in the filing of the above-identified application after having been presented with the application papers. Specifically, the declaration of facts of Philip R. Albert establishes that the non-signing inventor was presented with a copy of the application papers but refused to execute the declaration.

The above-identified application and papers have been reviewed and found in compliance with 37 CFR 1.47(a). This application is hereby accorded Rule 1.47(a) status.

As provided in Rule 1.47(a), this Office will forward notice of this application's filling to the non-signing inventor at the address given in the Declaration. Notice of the filing of this application will also be published in the Official Gazette.

A grantable petition under 37 CFR 1.47(a) requires: (1) proof that the non-signing inventor cannot be reached or refuses to sign the eath or declaration after having been presented with the application papers (specification, claims and drawings); (2) an acceptable oath or declaration in compliance with 35 U.S.C.

⁽⁴⁾ a statement of the fast known address of the non-signing inventor

After this decision is mailed, the application will be forwarded to the Office of Initial Patent Examination for correction of the bibliographic data sheet and issuance of a corrected Filing Receipt as requested in the facsimile supplement to the petition filed on 18 August, 2000. Thereafter, the file will be forwarded to Publishing Division for processing into a patent.

It is noted that petitioner has withdrawn the petition to correct the non-signing inventor's name.

Telephone inquiries related to this decision should be directed to Petitions Attorney Douglas I. Wood at 703-308-6918.

Beverly M. Flanagan

Supervisory Petitions Examiner

Office of Petitions

Office of the Deputy Commissioner

for Patent Examination Policy



United States Patent and Trademark Office

Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C. 20231
Washington, D.C. 2024
Washington, D.C. 2024
Paper No. 30

COPY MAILED

SEP 1 9 2000

SPECIAL PHUGHAMS OFFICE DAC FOR PATENTS

S. Mitra Ardon 1056 Noe San Fransisco, CA 94114

In re Application of Leahy et al. Application No. 08/747,420 Filed: 12 November, 1996

For: Scalable Virtual Word Chat Client-Server System

Dear Mr. Ardon:

You are named as a joint inventor in the above identified United States patent application, filed under the provisions of 35 U.S.C. 116 (United States Code), and 37 CFR 1.47(a), Rules of Practice in Patent Cases. Should a patent be granted on the application you will be designated therein as a joint inventor.

As a named inventor you are entitled to inspect any paper in the file wrapper of the application, order copies of all or any part thereof (at a prepaid cost per 37 CFR 1.19) or make your position of record in the application. Alternatively, you may arrange to do any of the preceding through a registered patent attorney or agent presenting written authorization from you. If you care to join the application, counsel of record (see below) would presumably assist you. Joining in the application would entail the filing of an appropriate oath or declaration by you pursuant to 37 CFR 1.63.

Telephone inquiries regarding this communication should be directed to Petitions Attorney Douglas I. Wood at 703/308-6918. Requests for information regarding your application should be directed to the File Information Unit at 703/308-2733. Information regarding how to pay for and order a copy of the application, or a specific paper in the application, should be directed to Certification Division at 703/308-9726 or 1-800-972-6382 (outside the Washington D.C. area).

Beverly M. Flanagan Supervisory Petitions Examiner Office of Petitions

Office of the Deputy Commissioner for Patent Examination Policy

TOWNSEND & TOWNSEND & CREW 8TH FLOOR TWO EMBARCADERO CENTER SAN FRANSICO, CA 94111-3834

U.S. Pation	PTO/SB68 (09-06) Approved for use through 03/31/2007. OMB 0651-0031 and Tradomork Office U.S. DEPARTMENT OF COMMERCE of disformation unless if all others in the COMMERCE
Under the Peperwork Reduction Act of 1995, no persons are required to respond to a collection STATEMENT UNDER 37 CFR 3.	
Applicant/Patent-Owner: Leahy et at	
Application No./Patent No.: TBD Filed/Issue Date: Nover	mber 2, 2006
Entitled: Scalable Vinual World Chat Client-Server System	
World's com Inc. 8 Corporation (Name of Assignee) (Type of Assignee). Corporation	poration, partnership, university, government agency, etc.)
states that it is: i. It has assignee of the entire right, title, and interest; or	Control of the contro
an essignee of less than the entire right, title and interest (The extent (by percentage) of its ownership interest is	
in the patent application/patent identified above by virtue of either:	
A An assignment from the inventor(s) of the patent application/patent identition the United States Patent and Trademark Office at Reel 008385 thereof is attached. OR ON 1136 B. A chain of title from the inventor(s), of the patent application/patent identition.	Frame 0125 or for which a copy
1. From: To: The document was recorded in the United States Patent and Trad Reel, Frame, or for which a	lemark Office at copy thereof is attached.
2. From: To:	
The document was recorded in the United States Patent and Trad Reel, Frame, or for which	emark Office at a copy thereof is attached.
3. From:	
The document was recorded in the United States Patent and Trad Real, Frame, or for which	emark Office at a copy thereof is attached.
Additional documents in the chain of title are listed on a supplemental	sheet.
As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the charassignee was, or concurrently is being, submitted for recordation pursuant to 37	in of title from the original owner to the 7 CFR 3.41.
[NOTE: A separate copy (i.e., a true copy of the original assignment docum Division in accordance with 37 CFR Part 3, to record the assignment in 302.08]	ient(s)) must be submitted to Assignment in the records of the USPTO. <u>See MPEP</u>
The undersigned (whose title is supplied below) is authorized to act on behalf of	
Signature	November 2, 2006
Thom Kladn	Oale (617):725-8900
Printed or Typed Name	Telephone Number
CEO Title	

Title

This collection of information is required by 37 CFR 3.73(b). 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. Confidentially is governed by 35 U.S.C. 192 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 infinures to complete, including glathering, preparing, and submitting the completed application from to the USPTO. Time will very depending upon the individual case; Any comments on the internation of the ground of time your coquire to complete this form ander suggestions for reducing this burdon, should be sent to the Chief Information Officer.

U.S. Patent and Trademark Office, U.S. Department of Commercia, 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, cell 1-800-PTO-9188 and select option 2.

BEST AVAILABLE COPY

DECLARATION

. As abelow named inventor, I	declare	u
-------------------------------	---------	---

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: SCALABLE VIRTUAL WORLD CHAT CLIENT-SERVER SYSTEM the specification of which __ is attached hereto or __ was filed on ___ as Application No. __ and was amended on __ (if applicable).

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign applications(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Country	Application No.	Date of Filing	Priority Claimed Under 35 USC 119
			Yes No
			Yes No

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

Application No.	Filing Date
60/020,296	June 24, 1996 11/13/1995

I claim the benefit under Title 35. United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Date of Filing		Status		
7 topication 1.10.		Patented	Pending	Abandoned	
		Patented	Pending	Abandoned	

Full Name of Inventor 1	Last Name Leahy	First Name Dave	Middle Name or Initial	
Residence &	City	State/Foreign Country	Country of Citizenship	
Citizenship	Oakland	CA	USA	
Post Office	Post Office Address	City	State/Country Zip Co	
Address	6056 Romany Road	Oakland	CA 94618	
Full Name	Last Name	First Name	Middle Name or Initial	
of Inventor 2	Challinger	Judith		
Residence &	City	State/Foreign Country	Country of Citizenship	
Citizenship	Santa Cruz	CA	USA	
Post Office	Post Office Address	City	State/Country	Zip Code
Address	244 Northrop Place	Santa Cruz	CA	95060
Full Name	Last Name	First Name	Middle Name or Initial Thomas	
of Inventor 3	Adler	B.		
Residence &	City	State/Foreign Country	Country of Citizenship USA	
Citizenship	San Francisco	CA		
Post Office	Post Office Address	City	State/Country CA	Zip Code
Address	510 Third Street, Suite 530	San Francisco		94107
Full Name	Last Name	First Name	Middle Name or Initial [Mitra]	
of Inventor 4	Ardon	S.		
Residence and	City	State/Foreign Country	Country of Citizenship USA	
Citizenship	San Francisco	CA		
Post Office	Post Office Address	City	State/Country	Zip Code
Address	1056 Noe	San Francisco	CA	94114

I turther dectare that all statements made nevern of my own knowledge are tide and distant all statements made on the like so made are helieved to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, ooth, under Section 1001 of Title 18 of the Ur 1 States Code, and that such willful false statements may jeopardize the validity of application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2	Signature of Inventor 3
Dave Leahy	Judith Challinger	B. Thomas Adler
Date	Date 11/8/96	Date
Signature of Inventor 4		
S. [Mitra] Ardon		
Date	Date	Date

(Page 2 of 2)

a:\017376\0005\f01-dec

are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, oth, under Section 1001 of Title 18 of the Un 1 States Code, and that such willful false statements may jeopardize the validity o application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2	Signature of Inventor, 3
Dave Leahy	Judith Challinger	B. Thomas Adler
Date	Date	Date 29-0ct-96
Signature of Inventor 4		• •
S. [Mitra] Ardon		
Date	Date	Date

(Page 2 of 2)

n:\017376\0005\f01-dec

are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, statements may jeopardize the validity of application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2	Signature of Inventor 3
Dave Leahy Deut Los	Judith Challinger	B. Thomas Adler
Date 11/11/96	Date	Date
Signature of Inventor 4		
S. [Mitra] Ardon		
Date	Date	Date

(Page 2 of 2)

p:\017376\0005\f01-decl

1

PATENT

Attorney Docket No. AP019CON3

SCALABLE VIRTUAL WORLD CHAT CLIENT-SERVER SYSTEM

5 .

10

15

20

25

30

35

BACKGROUND OF THE INVENTION

The present invention relates to the field of packet communications. More specifically, in one embodiment the invention provides an efficient communications network for client-server networks with large numbers of clients.

A client-server network is a network where one or more servers are coupled to one or more clients over a communications channel. Typically, each server and each client is assigned an address so that each can determine which network messages are directed to it. While such a system may have only one server, it typically has many clients. A server object is one which waits for a request from a client object and then performs some service in response to the client request. A client is an object that makes the request. The designation of a particular object (computer hardware and/or software process) as a "server" object or a "client" object is not fixed. Thus, a given object can be a server for some services and a client of other services.

A typical computer network has one or more file and print servers with a number of clients, where the clients are the desktop computers or workstations of the computer users, all coupled to a high-speed network cable. Client-server communications in such a network are easily handled for several reasons. When clients are not all communicating with the server at once the server need not be designed to handle all the clients at one time. Another reason is that the network traffic is much less than the network capacity furthermore, the clients in a typical computer network need not necessarily be communicating in real-time with the server. However, where many client machines or processes are communicating with each other in real-time through the server, several problems arise.

For example, where a client-server system is used for real-time exchange of information, such as a distributed virtual reality network where users at client machines visually and aurally interact with other users at other client machines, communication is much more difficult, especially where the information is high-bandwidth data such as audio streams, graphic images and image streams. One application of such a client-server system is for game playing, where the positions and actions of each user need to be communicated between all the players to inform each client of the state changes (position, actions, etc.) which occurred at the other clients. The server might maintain global state information and serve as a data server for the clients as they request visual, program and other data as the game progresses.

Some game systems use a peer-to-peer architecture. In a peer-to-peer architecture, a copy of the data which is common to all clients is kept by the client and information which needs to pass between clients is broadcast over the network. This limits the number of clients which can be connected to the network, because the number of messages passing between clients is on the order of the square of the number of clients. With true broadcasting, one message is sent and all clients listen for it, but not all network topologies can handle broadcasts. Where less than all the clients are participating in a game, for example, messages cannot be broadcast because there are clients which should not be receiving the broadcast message. Instead, the broadcast between the players is handled by generating one message to each player client.

This architecture is further limited where the network is not a dedicated network, but is an open network, such as the Internet. As used herein, the term "Internet" refers to the global inter-network of networks which communicates primarily using packets sent according to TCP/IP (Transport Control Protocol/Internet Protocol) standards well known in the art of computer intercommunication. With Internet communications, true broadcasting is not even possible because the network's extent is not known or fixed.

Thus, messages to all players must be sent as separate messages. An additional problem with Internet communications is that packet delivery is not guaranteed nor is it even as reliable as a dedicated network.

Therefore, what is needed is an efficient system for communication between many client systems over dedicated or open networks to provide graphical interaction between users operating the client systems.

5 .

10

15

20

25

30

35

SUMMARY OF THE INVENTION

The present invention provides a highly scalable architecture for a three-dimensional graphical, multi-user, interactive virtual world system. In a preferred embodiment a plurality of users interact in the three-dimensional, computer-generated graphical space where each user executes a client process to view a virtual world from the perspective of that user. The virtual world shows avatars representing the other users who are neighbors of the user viewing the virtual word. In order that the view can be updated to reflect the motion of the remote user's avatars, motion information is transmitted to a central server process which provides positions updates to client processes for neighbors of the user at that client process. The client process also uses an environment database to determine which background objects to render as well as to limit the movement of the user's avatar.

A further understanding of the nature and advantages of the inventions herein may be realized by reference to the remaining portions of the specification and the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a client screen view in a virtual world system according to the present invention.

FIG. 2 is a logical block diagram of the hardware elements of a virtual world system.

FIG. 3 is a block diagram of the elements of one embodiment of a virtual world system, showing two clients and one server.

FIG. 4 is a more detailed block diagram of a client system according to one embodiment of the present invention.

FIG.5 is an illustration of an avatar.

10

15

20

25

30

35

DESCRIPTION OF THE PREFERRED EMBODIMENT

Although the preferred embodiment of the present invention can be used in a variety of applications, as will be apparent after reading the below description, the preferred embodiment is described herein using the example of a client-server architecture for use in a virtual world "chat" system. In this chat system, a user at each client system interacts with one or more other users at other client systems by inputting messages and sounds and by performing actions, where these messages and actions are seen and acted upon by other clients. FIG. 1 is an example of what such a client might display.

Each user interacts with a client system and the client system is networked to a virtual world server. The client system are desktop computers, terminals, dedicated game controllers, workstations, or similar devices which have graphical displays and user input devices. The term "client" generally refers to a client machine, system and/or process, but is also used to refer to the client and the user controlling the client.

FIG. 1 is an illustration of a client screen display 10 seen by one user in the chat system. Screen display 10 is shown with several stationary objects (wall, floor, ceiling and clickable object 13) and two "avatars" 18. Each avatar 18 is a three dimensional figure chosen by a user to represent the user in the virtual world. Each avatar 18 optionally includes a label chosen by the user. In this example, two users are shown: "Paula" and "Ken", who have chosen the "robot" avatar and the penguin avatar, respectively. Each user interacts with a client machine (not shown) which produces a display similar to screen display 10, but from the

perspective of the avatar for that client/user. Screen display 10 is the view from the perspective of a third user, D, whose avatar is not shown since D's avatar is not within D's own view. Typically, a user cannot see his or her own avatar unless the chat system allows "our of body" viewing or the avatar's image is reflected in a mirrored object in the virtual world.

Each user is free to move his or her avatar around in the virtual world. In order that each user see the correct location of each of the other avatars, each client machine sends its current location, or changes in its current location, to the server and receives updated position information of the other clients.

10

15

20

25

30

35

while FIG. 1 shows two avatars (and implies a third), typically many more avatars will be present. A typical virtual world will also be more complex than a single room. The virtual world view shown in FIG. 1 is part of a virtual world of several rooms and connecting hallways as indicated in a world map panel 19, and may include hundreds or users and their avatars. So that the virtual world is scalable to a large number of clients, the virtual world server must be much more discriminating as to what data is provided to each clients. In the example of FIG. 1, although a status panel 17 indicates that six other avatars are present, many other avatars are in the room, but are filtered out for crowd control.

FIG. 2 is a simplified block diagram of the physical architecture of the virtual world chat system. Several clients 20 are shown which correspond with the users controlling avatars 18 shown in screen display 10. These clients 20 interact with the virtual world server 22 as well as the other clients 20 over a network 24 which, in the specific embodiment discussed here, is a TCP/IP network such as the Internet. Typically, the link from the client is narrowband, such as 14.4 kbps (kilobits/second).

Typically, but not always, each client 20 is implemented as a separate computer and one or more computer systems are used to implement virtual world server 22. As

used here, the computer system could be a desktop computer as are well known in the art, which use CPU's available from Intel Corporation, Motorola, SUN Microsystems, Inc., International Business Machines (IBM), or the like and are 5 controlled by operation systems such as the Windows® program which runs under the MS-DOS operating system available from Microsoft Corporation, the Macintosh $^{f 0}$ O/S from Apple Computer, or the Unix® operating system available from a variety of vendors. Other suitable computer systems include notebook computers, palmtop computers, hand-held programmable computing devices, special purpose graphical game machines (e.g., those sold by Sony, SEGA, Nintendo, etc.), workstations, terminals, and the like.

10

15

20

25

30

35

The virtual world chat system is described below with reference to at least two hypothetical users, A and B. Generally, the actions of the system are described with reference to the perspective of user A. It is to be understood that, where appropriate, what is said about user A applies to user B, and vice versa, and that the description below also holds for a system with more than two users (by having multiple users A and/or B). Therefore, where an interaction between user A and user B is described, implied therein is that the interaction could take place just as well with users A and B having their roles reversed and could take place in the same manner between user A and user C, user D, etc. The architecture is described with reference to a system where each user is associated with their own client computer system separate from the network and servers, however a person of ordinary skill in the art of network configuration would understand, after reading this description, how to vary the architecture to fit other physical arrangements, such as multiple users per computer system or a system using more complex network routing structures than those shown here. A person of ordinary skill in the art of computer programming will also understand that where a process is described with reference to a client or server, that process could be a program executed by a CPU in that client or server system and the program could be stored in a permanent memory, such as a

7 .

hard drive or read-only memory (ROM), or in temporary memory, such as random access memory (RAM). A person of ordinary skill in the art of computer programming will also understand how to store, modify and access data structures which are shown to be accessible by a client or server.

Referring now to FIG. 3, a block diagram is shown of a world system 54 in which a user A, at a first client system 60 (client A), interacts with a user B at a second client system 60 (client B) via a server 61. Client system 60 includes several databases, some of which are fixed and some of which are modifiable. Client system 60 also includes storage for program routines. Mechanisms for storing, reading and modifying data on computers such as client system 60 are well known in the art, as are methods and means for executing programs and displaying graphical results thereof. One such program executed by client system 60 is a graphical rendering engine which generates the user's view of the virtual world.

10

15

20

25

30

35

Referring now to FIG. 4, a detailed block diagram of client 60 used by a user, A is shown. The other clients used by other users are similar to client 60.

The various components of client 60 are controlled by CPU 100. A network packet processor 102 sends and receives packets over network connection 80. Incoming packets are passed to a network message processor 104 which routes the message, as appropriate to, a chat processor 106, a custom avatar images database 108, a short object ID lookup table 110, or a remote avatar position table 112. Outgoing packets are passed to network packet processor 102 by network message processor in response to messages received from chat processor 106, short object ID lookup table 110 or a current avatar position register 114.

Chat processor 106 receives messages which contain conversation (text and/or audio) or other data received from other users and sends out conversation or other data directed to other users. The particular outgoing conversation is provided to chat processor 106 by input devices 116, which might include a keyboard, microphones, digital video cameras, and the like. The routing of the conversation message depends

on a selection by user A. User A can select to send a text message to everyone whose client is currently on line ("broadcast"), to only those users whose avatars are "in range" of A's avatar ("talk"), or to only a specific user 5 ("whispering"). The conversation received by chat processor 106 is typically received with an indication of the distribution of the conversation. For example, a text message might have a "whisper" label prepended to it. If the received conversation is audio, chat processor 106 routes it to an audio output device 118. Audio output device 118 is a speaker coupled to a sound card, or the like, as is well known in the art of personal computer audio systems. If the received conversation is textual, it is routed to a rendering engine 120 where the text is integrated into a graphical display 122. Alternatively, the text might be displayed in a region of display 122 distinct from a graphically rendered region.

10

15

20

25

30

35

Current avatar position register 114 contains the current position and orientation of A's avatar in the virtual world. This position is communicated to other clients via network message processor 104. The position stored in register 114 is updated in response to input from input devices 116. For example, a mouse movement might be interpreted as a change in the current position of A's avatar. Register 114 also provides the current position to rendering. engine 120, to inform rendering engine 120 of the correct view point for rendering.

Remote avatar position table 112 contains the current positions of the "in range" avatars near A's avatar. Whether another avatar is in range is determined a "crowd control" function, which is needed in some cases to ensure that neither client 60 nor user A get overwhelmed by the crowds of avatars likely to occur in a popular virtual world.

Server 61 maintains a variable, N, which sets the maximum number of other avatars A will see. Client 60 also maintains a variable, N', which might be less than N, which indicates the maximum number of avatars client 60 wants to see and/or hear. The value of N' can be sent by client 0 to server 61. One reason for setting N' less than N is where

client 60 is executed by a computer with less computing power than an average machine and tracking N avatars would make processing and rendering of the virtual world too slow. Once the number of avatars to be shown is determined, server 61 5 determines which N avatars are closest to A's avatar, based on which room of the world A's avatar is in and the coordinates of the avatars. This process is explained in further detail If there are less than N avatars in a room which does not have open doors or transparent walls and client 60 has not limited the view to less than N avatars, A will see all the avatars in the room. Those avatars are thus "neighboring" which means that client 60 will display them.

10

15

20

25

30

35

Generally, the limit set by server 61 of N avatars and the limit set by client 60 of N' avatars control how many avatars A sees. If server 61 sets a very high value for N, then the limit set by client 60 is the only controlling factor. In some cases, the definition of "neighboring" might be controlled by other factors besides proximity. For example, the virtual world might have a video telephone object where A can speak with and see a remote avatar. Also, where N or more unfriendly avatars are in close proximity to A's avatar and they persist in following A's avatar, A will not be able to see or communicate with other, friendly avatars. prevent this problem, user A might have a way to filter out avatars on other variables in addition to proximity, such as user ID.

In any case, remote avatar position table 112 contains an entry for each neighboring avatar. indicates where the remote avatar is (its position), its orientation, a pointer to an avatar image, and possible other data about the avatar such as its user's ID and name. position of the avatar is needed for rendering the avatar in the correct place. Where N' is less than N, the client also uses position data to select N' avatars from the N avatars provided by the server. The orientation is needed for rendering because the avatar images are three-dimensional and look different (in most cases) from different angles. pointer to an avatar image is an index into a table of

preselected avatar images, fixed avatar image database 71, or custom avatar images database 108. In a simple embodiment, each avatar image comprises M panels (where M is greater than two with eight being a suitable number) and the i-th panel is the view of the avatar at an angle of 360*i/M degrees. Custom avatar images are created by individual users and sent out over network connection 80 to other clients 60 which are neighbors of the custom avatar user.

Short object ID lookup table 110 is used to make communications over network connection 80 more efficient. Instead of fully specifying an object, such as a particular panel in a particular room of a world avatar, a message is sent from server 61 associating an object's full identification with a short code. These associations are stored in short object ID lookup table 110. In addition to specifying avatars, the short object ID's can be used to identify other objects, such as a panel in a particular room.

Short object ID lookup table 110 might also store purely local associations. Although not shown in FIG. 4, it is to be understood that connections are present between elements shown and CPU 100 as needed to perform the operations described herein. For example, an unshown connection would exist between CPU 100 and short object ID lookup table 110 to add, modify and delete local—short object ID associations. Similarly, CPU 100 has unshown connections to rendering engine 120, current avatar position register 114 and the like.

Client 60 includes a rooms database 70, which describes the rooms in the virtual world and the interconnecting passageways. A room need not be an actual room with four walls, a floor and a ceiling, but might be simply a logical open space with constraints on where a user can move his or her avatar. CPU 100, or a specific motion control process, limits the motion of an avatar, notwithstanding commands from input devices 116 to do so, to obey the constraints indicated in rooms database 70. A user may direct his or her avatar through a doorway between two rooms, and if provided in the virtual world, may teleport from one room to another!

Client 60 also includes an audio compressor/decompressor 124 and a graphics compressor/decompressor 126. These allow for efficient transport of audio and graphics data over network connection 80.

In operation, client 60 starts a virtual world session with user A selecting an avatar from fixed avatar image database 71 or generating a custom avatar image. In practice, custom avatar image database 108 might be combined with fixed avatar image database 71 into a modifiable avatar image database. In either case, user A selects an avatar image and a pointer to the selected image is stored in current avatar position register 114. The pointer is also communicated to server 61 via network connection 80. Client 60 also sends server 61 the current position and orientation of A's avatar, which is typically fixed during the initialization of register 114 to be the same position and orientation each time.

Rooms database 70 in a fixed virtual world is provided to the user with the software required to instantiate the client. Rooms database 70 specifies a list of rooms, including walls, doors and other connecting passageways. Client 60 uses the locations of walls and other objects to determine how A's avatar's position is constrained. Rooms database 70 also contains the texture maps used to texture the walls and other objects. Avatar database 71 specifies the bitmaps used to render various predefined avatars provided with the client system. Using rooms database 70 and the locations, tags and images of all the neighboring avatars, then a view of objects and other avatars in the virtual world can be rendered using the room primitives database and the avatar primitives database.

Instead of storing all the information needed for rendering each room separately, a primitives database can be incorporated as part of rooms database 70. The entries in this primitives database describe how to render an object (e.g., wall, hill, tree, light, door, window, mirror, sign, floor, road). With the mirrored primitive, the world is not

actually mirrored, just the avatar is. This is done by mapping the avatar to another location on the other side of the mirrored surface and making the mirror transparent. This will be particularly useful where custom avatars are created, or where interaction with the environment changes the look of the avatar (shark bites off arm, etc.).

The typical object is inactive, in that its only effect is being viewed. Some objects cause an action to occur when the user clicks on the object, while some objects just take an action when their activating condition occurs. An example of the former is the clickable objects 13 shown in FIG. 1 which brings up a help screen. An example of the latter is the escalator object. When a user's avatar enters the escalator's zone of control, the avatar's location is changed by the escalator object automatically (like a real escalator).

The avatars in fixed avatar image database 71 or custom avatar images database 108 contain entries which are used to render the avatars. A typical entry in the database comprises N two-dimensional panels, where the i-th panel is the view of the avatar from an angle of 360 * i/N degrees. Each entry includes a tag used to specify the avatar.

In rendering a view, client 60 requests the locations, orientations and avatar image pointers of neighboring remote avatars from server 61 and the server's responses are stored in remote avatar position table 112. Server 61 might also respond with entries for short object ID lookup table 110. Alternatively, the updates can be done asynchronously, with server 61 sending periodic updates in response to a client request or automatically without request.

Rendering engine 120 then reads register 114, remote avatar position table 112, rooms database 70 and avatar image databases as required, and rendering engine 120 renders a view of the virtual world from the view point (position and orientation) of A's avatar. As input devices 116 indicate motion, the contents of register 114 are updated and rendering engine 120 re-renders the view. Rendering engine 120 might

periodically update the view, or it may only update the view upon movement of either A's avatar or remote avatars.

Chat processor 106 accepts chat instructions from user A via input devices 116 and sends conversation messages to server 61 for distribution to the appropriate remote clients. If chat processor 106 receives chat messages, it either routes them to audio output device 118 or to rendering engine 120 for display.

10

15

20

25

30

35

Input devices 116 supply various inputs from the user to signal motion. To make movement easier and more natural, client 60 performs several unique operations. One such operation is "squared forward movement" which makes it easier for the user to move straight. Unlike ordinary mouse movements, where one mouse tick forward results in an avatar movement forward one unit and one mouse tick to the left or right results in side movement of one unit, squared forward movement squares the forward/backward ticks or takes the square root of the sideways ticks or divides by the number of forward/backward ticks. For example, if the user moves the mouse F mouse ticks forward, the avatar moves F screen units forward, whereas if the user moves the mouse F mouse units forward and L mouse units to the left, the avatar moves F · units forward and L/F screen units to the left. For covering non-linear distances, (F,L) mouse units (i.e., F forward, L to the side) might translate to (F2,L) screen units.

As mentioned above, user input could also be used to signal a desire for interaction with the environment (e.g. clicking on a clickable object). User input could also be used to signal for a viewpoint change (e.g. head rotation without the avatar moving, chat inputs and login/logout inputs.

In summary, client 60 provides an efficient way to display a virtual, graphical, three-dimensional world in which a user interacts with other users by manipulating the positions of his or her avatar and sends chat messages to other users.

Network connection 80 will now be further described. Commonly, network connection 80 is a TCP/IP network connection

between client 60 and server 61. This connection stays open as long as client 60 is logged in. This connection might be over a dedicated line from client 60, or might be a SLIP/PPP connection as is well known in the art of network connection.

5 .

10

15

20

25

30

35

The network messages which pass over network connection 80 between client 60 and server 61 are described immediately below briefly, with a more detailed description in Appendix A. Three main protocols exist for messaging between client 60 and server 61: 1) A control protocol, 2) a document protocol, and 3) a stream protocol. The control protocol is used to pass position updates and state changes back and forth between client 60 and server 61. The control protocol works with a very low bandwidth connection.

The document protocol is used between client 60 and server 61 to download documents (text, graphics, sound, etc.) based on Uniform Resource Locators (URLs). This protocol is a subset of the well-known HTTP (Hyper-Text Transport Protocol). This protocol is used relatively sparingly, and thus bandwidth is not as much of a concern as it is with the control protocol. In the document protocol, client 60 sends a document request specifying the document's URL and server 61 returns a copy of the specified document or returns an error (the URL was malformed, the requested URL was not found, etc.).

The stream protocol is used to transfer real-time video and audio data between client 60 and server 61. Bandwidth is not as much a concern here as it is with the control protocol.

Each room, object, and user in a virtual world is uniquely identified by a string name and/or numerical identifier. For efficient communications, string names are not passed with each message between client 60 and server 61, but are sent once, if needed, and stored in short object ID lookup table 110. Thereafter, each message referring to an object or a user need only refer to the short object ID which, for 256 or less objects, is only an 8-bit value. Rooms are identified by a unique numerical value contained in two bytes (16 bits).

15

The control protocol is used by client 60 to report the location and state information, such a "on" and "off" states for a light object or other properties, for user A to server 61 and is used by server 61 to send updates to client 5 60 for remote avatar position table 112 and updates of characteristics of other objects in the virtual world environment. Server 61 also uses the control protocol to update client 61 on which avatars are in range of A's avatar. To allow for piecemeal upgrading of a virtual world system, client 60 will not err upon receipt of a message it does not understand, but will ignore such as message, as it is likely to be a message for a later version of client 60.

10

15

20

Each message is formed into a control packet and control packets assume a very brief form so that many packets can be communicated quickly over a narrowband channel. control packets are not to be confused with TCP/IP or UDP packets, although a control packet might be communicated in one or more TCP/IP or UDP packets or more than one control packet might be communicated in one TCP/IP packet.. format of a control packet is shown in Table 1.

TABLE 1.

	FIELD	SIZE	DESCRIPTION
25	PktSize	UInt8	Number of bytes in the control packet (including Pktsize byte)
	ObjID	<pre>UInt8 (ShortObjID) Ostring (LongObjID)</pre>	Identifies the object to which the command is directed
	Command	UInt8 + arguments	Describes what to do with the object

"UInt8" is an 8-bit unsigned integer. "Ostring" is a byte 30 containing zero (indicating that a long object identifier is to follow) followed, by a string (which is defined to be a byte containing the size of the string followed by the characters

of the string). Each control packet contains one command or one set of combined commands. The ObjID field is one of two formats: either a ShortObjID (0 to 255) or a LongObjID (a string). The ObjID field determines which object in the client's world will handle the command. Several ShortObjID values are preassigned as shown in Table 2.

TABLE 2.

10	<u>ShortObjID</u>	<u>Object</u>
	0	A short ObjID of 0 indicates that a Long ObjID follows
	1	The Client's Avatar
	254	CO - Combine Object
	255	PO - Protocol Object

15

20

25

30

The other ShortObjID values are assigned by server 61 to represent objects in the virtual world. These assignments are communicated to client 60 in a control packet as explained below. The assignments are stored by client 60 in short object ID lookup table 110. The ShortObjID references are shorthand for an object which can also be referenced by a LongObjID.

When commands are directed at the CO object (ShortObjID=254), those commands are interpreted as a set of more than one command. When commands are directed at the PO object, the command applies to the communications process itself. For example, the REGOBJIDCMD command, which registers an association between a ShortObjID and a LongObjID, is directed at the PO object. Upon receipt of this command, client 60 registers the association in the short object ID lookup table.

A command takes the form of a command type, which is a number between 0 and 255, followed by a string of arguments as needed by the particular command.

The CO object is the recipient of sets of commands. One use of a set of commands is to update the positions of several avatars without requiring a separate control packet for each avatar, thus further saving network bandwidth. 5 form of the command is exemplified by the following command to move objects 2 and 4 (objects 2 and 4 are remote avatars):

S>C CO SHORTLOCCMD [2 -10 -20 -90] [4 0 0 90]

10

35

In the above control packet, "S>C" indicates the direction of the packet (from server to client), CO is the object, SHORTLOCCMD is the command type, and the command type is followed by three abbreviated commands. The above control packet requires only fifteen bytes: one for packet size (not shown), one for the CO object ID, one for the command type and 15 twelve for the three abbreviated commands. Note that the "S>C" indicator is not part of the control packet. position of the boundaries between commands (indicated above with brackets, which are not actually communicated) is inferred from the fact that the SHORTLOCCMD command type 20 requires four byte-wide arguments. Each abbreviated command in a command set is the same size, for easy parsing of the . commands by the CO. Examples of abbreviated commands for which a CO command is useful are the Teleport, Appear, 25 Disappear, and ShortLocation commands. These commands, and other commands, are described in more detail in Appendix A. Appendix A also shows the one byte representation of SHORTLOCCMD as well as the one byte representations of other command types. The contents of control packets described herein are shown in a readable form, however when transmitted 30 over network connection 80, the control packets are compacted using the values shown in Appendix A.

The following examples show various uses of control In the following sequences, a line beginning with packets. "S>C" denotes a control packet sent from server 61 to client 60, which operates user A's avatar and interacts with user A. Similarly, a line beginning with "C>S" denotes a control

packet sent from client 60 to server 61. Note that all of the lines shown below omit the packet size, which is assumed to be present at the start of the control packet, and that all of the lines are shown in readable format, not the compact, efficient format discussed above and shown in Appendix A.

The following is a control packet for associating ShortObjIDs with Long Object names:

S>C PO REGOBJIDCMD "Maclen" 5

Server 61 determines what short object ID (ShortObjID) to use for a given object. With four pre-allocated Short ObjID values, server 61 can set up 252 other ID values. In the above command, the object whose long name is "Maclen" is assigned the ShortObjID of 5. This association is stored by client 60 in short object ID lookup table 110. The first two fields of the above command line, "PO" and "REGOBJIDCMD" indicate that the protocol object (PO) is to handle the command and indicate the command type (REGOBJIDCMD). The actual binary for the command is, in hexadecimal (except for the string):

S>C FF OD 06 Maclen 05

25

20

10

15

The following is a control packet containing a chat message:

C>S CLIENT TEXTCMD "" "Kyle, How is the weather?"

30

35

The ObjID field is set to CLIENT. The field following the command type (TEXCMD) is unused in a text command from client to server. Server 61 will indicate the proper ObjID of user A's avatar when sending this message back out to the remote clients who will receive this chat message. Thus, server 61 might respond to the above command by sending out the following control packet to the remote clients (assuming user A is named "Judy"):

S>C CLIENT TEXTCMD "Judy" "Kyle, How is the weather?"

Of course, the text "Judy" need not be sent. If a short object identifier has been registered with the client for Judy's avatar, only the ShortObjID for "Judy" need be sent. User A may also whisper a command to a single user who may or may not be in the same room, or even in the same virtual world. For example:

C>S CLIENT WHISPERCMD "Kyle" "Kyle, How are you?"

10

15

20

25

30

35

Server 61 will route this message directly to the recipient user. On the recipient client, the control packet for the message will arrive with the ObjID of the sender (just like a TEXTCMD), however, that client will know that it is a private message because of the command type. The remote client receives the following control packet from server 61:

S>C CLIENT WHISPERCMD "Judy" "Kyle, How are you?"

Other examples of control packets, such as those for entering and exiting sessions and applications, are shown in Appendix B. For state and property changes, objects have two kinds of attribute variables. The first kind of attribute values are "states" which represent boolean values. The second kind of attribute values are called "properties" and may contain any kind of information. Client 60 reports local attribute changes to server 61 as needed and server 61 reports to client 60 the attribute changes which might affect client 60. A different command is used for each kind of attribute, as shown in Appendix B.

From user A's point of view, avatars will appear and disappear from A's view in a number of circumstances. For example, avatars enter and leave rooms and move in and out of visual range (as handled by crowd control rules described below). Avatars also teleport from room to room, which is different than moving in and out of rooms. Client 60 will

send server 61 the following location and/or room change commands under the circumstances indicated:

- LOCATIONCMD: normal movement of A's avatar
- ROOMCHGCMD: changing rooms by walking
- TELEPORTCMD: changing rooms and/or location by teleporting
 - TELEPORTCMD, ExitType=0: entering the application
 - TELEPORTCMD, EntryType=0: exiting the application.

10

20

30

35

When other, remote clients take such actions, server 61 sends control packets to client 60, such as:

- TELEPORTCMD: remote avatar teleported (EntryType or

 ExitType may be 0 if the exit or entry was not visible to user

 A)
 - DISAPPEARACTORCMD: remote avatar was previously visible (in range), but is now invisible (out of range) due to normal (non-teleport) movement including having walked out of the room
 - APPEARACTORCMD: remote avatar was not visible, and is now visible (command includes the remote avatar's Location and Room)
- SHORTLOCCMD or LONGLOCCMD: remote avatar was visible before, and is still now, but has moved.

Two methods exist for updating the position of an actor (avatar). The LONGLOCCMD method uses full absolute position (X, Y, and Z) and orientation. The SHORTLOCCMD only updates the X and Y coordinates and the orientation. In addition, the short method limits the change in position to plus or minus 127 in the X and/or Y coordinates and/or +/- 127 in the orientation. Client 60 sends a LONGLOCCMD to server 61 to update the client's position. Whenever possible, server 61 uses the combined SHORTLOCCMD to update all of the visible avatars at once. If an avatar has moved too great a distance,

or has moved in the Z direction, server 61 then uses a LONGLOCCMD for that avatar.

The following is an example of a control packet sent from client 60 to server 61 to update user A's location:

C>S CLIENT LONGLOCCMD 2134 287 7199 14003

In the binary (given in hex), this is:

10 C>S 01 01 0856 011F 1C1F 36B3

5 .

15

20

25

30

Note that bytes are two digits and shorts (16 bits) are four digits. They are separated by spaces here for clarity. The actual packet would contain no spaces.

The Server often uses the combined short location update command. This command concatenates several ShortLocationCommands. Rather than sending a command to each of the objects in question, a single combined command is sent to the combine object (CO). This object takes the command and applies it to a list of truncated commands. The truncated commands contain a ShortObjID reference to the object to be moved and a change in the X and Y positions and orientation. If server 61 wants to update the positions of objects 56, 42 and 193, it would send the following:

S>C CO SHORTLOCCMD 56 -4 6 -10 42 21 3 -50 193 -3 -21 10

This command can contain a variable number of subcommands. Each subcommand is of fixed length so that the CO can find the length of it from a table check or other quick lookup method. The binary form of this command is:

S>C FE 04 38 FC 06 F6 2A 15 03 CD C1 FD EB 10

35 When user A changes rooms by walking through a door, a RoomChangeCommand control packet is sent by client 60 to server 61 to inform server 61 that the room change occurred.

The command specifies the new room and location for user A's avatar as follows:

C>S CLIENT ROOMCHNGCMD 01 25 1200 150 180

5 .

10 -

15

20

35

The first argument is the ObjID of the avatar that is leaving the room, the second argument is the command type (room change), and the third argument is the room that the avatar is entering. The next three arguments are the X, Y and Z positions at which to place the avatar in the room. The last argument is the direction the actor is facing (orientation). Note that the first argument is always the ObjID for the local avatar, CLIENT = 1.

When user A teleports from one room to another, the TeleportCommand is sent by client 60 to server 61 to inform server 61 that the teleport occurred. The method of leaving the room and entering the new one is sent to server 61. This allows server 61 to inform other clients to display explosions or clouds, smoke or other indications of the teleportation appearance/disappearance of the avatar. The teleport command is as follows:

C>S CLIENT TELEPORTCMD 01 02 02 25 1200 150 180

The first argument is the ObjID of the avatar that is teleporting, the second argument is the command type (teleport), and the third argument is the room that the avatar is entering. The next two arguments are the leaving method and the entering method respectively. The next three arguments are the X, Y and Z positions at which to place the actor in the room. The last argument is the direction the actor is facing (orientation). Note that the first argument is always the ObjID for the local avatar, CLIENT = 1.

Client 60 is responsible for implementing some sort of caching mechanism for actors. When client 60 receives a TeleportCommand or AppearCommand for an avatar that is appearing, it must first determine if it currently has information for the specified object cached. If not, client

60 can issue a request for any needed information pertaining to the object. Suppose client 60 receives the following command specifying that "Mitra" has arrived at room 15:

S>C "Mitra" TELEPORTCMD 15 3 3 0 0 0 0

If client 60 does not have an entry cached for this object ("Mitra"), or if the entry is dated, a request may be made for pertinent information (here, the long object ID is used since client 60 does not have the short object Id association for this object):

C>S "Mitra" PROPREQCMD VAR BITMAP

10

20

25

30

35

Server 61 will respond with a PropertyCommand as necessary to communicate the required information. An example of pertinent information above is a request for the avatar bitmap to use to represent mitra.

Crowd control is one of the tougher problems solved by the present system. Crowd control is handled using a number of commands. In a typical situation, the number of avatars in a room is too large to be handled by client 60 and displayed on display 122. The maximum number of avatars, N, is determined by server 61, but might also be determined for each client.

Server 61 addresses this problem by maintaining, for each user, a list of the N avatars nearest to the location of that user's avatar. This list may be managed by the server in any of a number of ways. When an avatar (B, for example) is removed from another user's (C, for example) list because avatar B can no longer be seen by C (i.e., B is no longer one of the N nearest avatars), Server 61 sends a DISAPPEARACTORCMD to the object for avatar B on client C. This occurs as a consequence of client B changing rooms with a ROOMCHANGECMD or TELEPORTCMD, or due to crowd control.

Client 60 does not necessarily delete an entry from remote avatar lookup table 112 or short object ID lookup table

110 if a remote avatar disappears, but just marks it as being non-visible. In some cases, a user can see another user's avatar, but that other user cannot see the first user's avatar. In other words, visibility is not symmetric. However, chat exchange is symmetric, i.e., a user can only

talk to those who can talk to the user.

When A's avatar is to be added to user B's lists when A becomes visible to B by reason of movement, room change, crowd control, or the like, server 61 (more precisely the protocol object PO on server 61) sends a REGOBJIDCMD control packet to the PO of B's client 60 and B's client 60 will add the association of A's avatar with a short object ID to short object ID lookup table 110. Server 61 also sends an APPEARACTORCMD control packet to A's client giving the room and location of B. If A's client 60 does not have the appropriate information cached for B, A's client 60 sends a PropertyRequestCommand control packet to server 61 asking for the properties of B, such as the bitmap to use to display B's avatar. Server 61 will return the requested information, which it might need to obtain from B's client 60. example, the control packet:

PROPREQCMD VAR BITMAP

10

15

20

35

25 might be used. Whenever possible, location updates from server 61 will be sent as SHORTLOCCMD control packets addressed to the remote avatar using its ShortObjId and the DisappearActorCommands, AppearActorCommands, and TeleportCommands used to update client 60 on the status of 30 visible remote avatars will be combined as described for the ShortLocationCommands.

The server 61 shown in FIG. 3 will now be described. Server 61 comprises generally a network layer 62, protocol objects 63, user objects 64, room objects 65. In an object oriented software embodiment of the invention, each of these objects and layers are implemented as objects with their specific methods, data structures and interfaces. server 61 is implemented on a hardware running the Unix

operating system, these objects might be objects in a single process or multiple processes. Where server 61 is implemented on hardware running the Windows(tm) operating system alone or in combination with the MS-DOS operating system or the like, the layers and objects might be implemented as OLE (Object Linking and Embedding) objects.

One protocol object 63 and one user object 64 are instantiated for each user who logs into server 61. Network layers 62 accepts TCP/IP connections from clients 60. A socket is opened and command buffers are allocated for each client 60. Network layer 62 is responsible for instantiating a protocol object 63 for each TCP/IP socket established. This layer handles the sending and receiving of packets, such as control packets, document packets and stream packets, over the network. All sockets are examined by server 61 on a periodic basis; completed control packets received from a client 60 are processed by server 61, and outgoing control packets to a client 60 which are pending are sent.

Protocol object 63 handles translation of internal messages to and from the cryptic and compressed form of the control packets which are sent over network connection 80, as explained in Appendices A and B. Protocol object 63 handles all session initialization and authentication for its client 60, and is responsible for instantiating a user object 64 for authenticated users.

User object 64 tracks the location of its user's avatar, which includes at least the room in which the user is located, the user's coordinates in the room and the user's orientation in that room. User object 64 also maintains a list of the N nearest neighboring remote avatars (i.e., avatars other than the avatar for the user object's client/user) in the room. This list is used to notify the user object's client 60 regarding changes in the N closest remote avatars and their locations in the room. The list is also used in disseminating text typed by the user to only those users nearest him or her in the room. This process of notifying client 60 of only the N nearest neighbors is handled as part of crowd control.

One room object 65 is instantiated for each room in rooms database 70 and the instantiation is done when server 61 is initialized. Alternatively, room objects can be instantiated as they are needed. As explained above, the term 5 . "room" is not limited to a visualization of a typical room, but covers any region of the virtual world which could be grouped together, such as the underwater portion of a lake, a valley, or a collection of streets. The room object for a specific room maintains a list of the users currently located in that room. Room object 65 periodically analyzes the positions of all users in the room using a cell-based algorithm, and sends a message to each user object 64 corresponding to those users in the room, where the message notifies the user object of its user's N nearest neighbors.

10

15

20

25

30

35

Periodically, the locations of the users in each room are examined and a square two-dimensional bounding box is placed around the users' current locations in the room. square bounding box is then subdivided into a set of square cells. Each user is placed in exactly one square. each user, the cells are scanned in an outwardly expanding wave beginning with the cell containing the current user of interest, until at least N neighbors of that user are found. If more than N are found, the list of neighbors is sorted, and the closest N are taken.

One or more world object 66 may be instantiated at the time server 61 is started. The world object maintains a list of all the users currently in the world and communicates with their user objects 64. The world object also maintains a list of all the rooms in the world and communicates with the room objects 65 for those rooms. The world object periodically initiates the analysis of user positions in each room and subsequent updating of avatar information to clients (60). In addition, the world object periodically initiates the collection of statistics on usage (for billing, study of which rooms are most popular, security logs, etc.) which are logged to a file.

Server 61 also has a rooms/world database 92 which is similar to the rooms/world database 70 in client 60.

Server 61 does not need the primitives databases because there is no display needed at the server. Server 61 does, however, include a user state database 90, which maintains state information on each user, such as address, log-in time, accounting information, etc.

Several interconnections are shown in FIG. 3. Path 81 between a protocol object 63 and a user object 64 carries messages between a client 60 and the user object 64 representing that client (before or after having been translated by a protocol object 63). Typical messages from the client to the user object include:

- Move my avatar to (x, y, z, orientation)
- Send a text message to all neighboring remote avatars

15

20

35

10

Typical messages from the user object to the client are:

- User X teleported into your view at (x, y, z, orient.)
- User Z has just left your view
- User W has moved to (x, y, z, orientation)
- Here is text from user Y
- Here is private text (whispered) from user A

25 The path 82 between a client 60 and a user object 64 other than its own user object 64 is used to send whispers from user to user. Path 83 is used for internal messages sent directly between user objects 64. Messages taking this path typically go from a given user to those users who are among its N nearest neighbors. Typical messages include:

- Here is text I have typed
- I have just teleported to a given room and location
- I have changed my state (logged in, logged out, etc.)
- I have changed one or more of my properties

Path 84 is used for messages between a user object 64 and a room object 65. User objects 64 communicate their

location to the room 65 they are currently in. Periodically, the room object will notify the user object of the identities and locations of the users' N nearest neighbors. Messages from the user object to the room include:

5 ·

- I have just teleported either into or out of this room
- I have just entered this room
- I have just left this room
- My new location in this room is (x, y, z, orientation)

10

15

20

The only message that passes from the room object to a user object is the one that notifies the user of its N nearest neighbors. Path 85 is used for communications between protocol objects and world object 66. Protocol object 63 can query world object 66 regarding the memory address (or functional call handle) of the user object 64 representing a given user in the system. This is the method that is used to send a whisper message directly from the protocol object to the recipient user object. Path 86 is used for communications between user object 64 and world object 66 to query the world object regarding the memory address or function call handle of the room object 65 representing a given room in the world. This is required when a user is changing rooms. FIG. 5 is an illustration of the penguin avatar rotated to various angles.

25

30

The above description is illustrative and not restrictive. Many variations of the invention will become apparent to those of skill in the art upon review of this disclosure. The scope of the invention should, therefore, be determined not with reference to the above description, but instead should be determined with reference to the appended claims along with their full scope of equivalents.

٠:.

Appendix A - Client/Server Control Protocol Commands (in BNF)

Valid CommandTypes are integers between 0 and 255. Several of 5 these are shown below as part of the BNF (Backus-Nauer Format) description of the command structures. Per convention, words starting with uppercase characters are non-terminals while those in quotes or in lowercase are terminal literals. 10 Basics a | b = Either a or b. 15 "abc" = The exact string of characters a, b and c in the order shown. = One or more occurrences of a. a+ 20 = Zero or more occurrences of a. = A number 10. In the ASCII protocol, this is the ASCII 10 string "10", in the binary form, it is a byte with a value of 25 = A numerical range from N to M. N. . M Equivalent to: N | N+1 | N+2 | ... | M-1 | M 30 Command Structures Packet = PktSize Message = UInt8 (size includes PktSize field) PktSize 35 = ObjID Command Message = LongObjID | ShortObjID ObjID 40 = OString LongObjID = UInt8 ShortObjID = CommandType CommandData Command 45 CommandType [Other commands might be added to these:] - LongLocationCommand 50 Command ShortLocationCommand StateCommand PropertyCommand PropertyRequestCommand CombinedCommand 55 RoomChangeCommand SessionInitCommand SessionExitCommand **ApplicationInitCommand ApplicationExitCommand** 60 DisappearActorCommand AppearActorCommand RegisterObjIdCommand TeleportCommand TextCommand 65 ObjectInfoCommand LaunchAppCommand

UnknownCommand

WhisperCommand StateRequestCommand

5	TeleportCommand Location	=	TELEPORTCMD NewRoom ExitType EntryType
	RoomChangeCommand	=	ROOMCHNGCMD NewRoom Location
10	LongLocationCommand	-	LONGLOCCMD Location
	DisappearActorCommand	=	DISAPPEARACTORCMD
15	AppearActorCommand	=	APPEARACTORCMD NewRoom Location
13	Location	=	X Y Z Direction
	X, Y, Z, Direction	=	SInt16
20	StateCommand	=	STATECMD SetFlags ClearFlags
,	SetFlags, ClearFlags	=	UInt32
25	PropertyCommand	=	PROPCMD Property+
	PropertyRequestCommand	=	PROPREQCMD VariableID*
	StateRequestCommand	=	STATEREQCMD
30	Property	0	VariableID VariableValue
	VariableID		ShortVariableId LongVariableId
35	ShortVariableId	=	UInt8
J J	LongVariableId	=	OString
	VariableValue	=	String .
40	ShortLocationCommand	œ	SHORTLOCCMD DeltaX DeltaY DeltaO
	DeltaX, DeltaY	-	SByte
45	DeltaO	=	SByte (plus 128 to -128 degrees)
	CombinedCommand		CombinedLocationCommand CombinedAppearCommand CombinedTeleportCommand CombinedDisappearCommand UnknownCombinedCommand
50		ł	
	CombinedLocationCommand		SHORTLOCCMD AbbrevLocCommand+
55	AbbrevLocCommand		ShortObjID DeltaX DeltaY DeltaO
	CombinedAppearCommand		APPEARACTORCMD AbbrevAppearCommand+
. .	AbbrevAppearCommand		ShortObjID NewRoom Location
60	CombinedDisappearCommand		DISAPPEARACTORCMD AbbrevDisappearCommand+
	AbbrevDisappearCommand		ShortObjID
65	CombinedTeleportCommand		TELEPORTCMD AbbrevTeleportCommand+
	AbbrevTeleportCommand	=	ShortObjID NewRoom ExitType EntryType Location
	[for now:] UnknownCombinedCommand	=	03, 510, 1317, 19.:255

	NewRoom	= UInt16						
	ExitType, EntryType	= UInt8						
5	SessionInitCommand	= SESSIONINITCMD Property+						
	SessionExitCommand	= SESSIONEXITCMD Property+						
10	ApplicationInitCommand	= APPINITCMD Property+						
10	ApplicationExitCommand	= APPEXITCMD Property+						
	RegisterObjIdCommand	= REGOBJIDCMD String ShortObjID						
15	TextCommand	= TEXTCMD ObjID String						
	WhisperCommand	= WHISPERCMD ObjID String						
20	LaunchAppCommand	= LAUNCHAPPCMD String						
	[for now:] UnknownCommand	= 0, 15, 20255						
25	String	= StringSize Char*						
	StringSize field)	= UInt8 (size of string EXCLUDING StringSize						
30	Char	= C datatype char						
	UInt32	= 04294967299 (32-bit unsigned)						
35	SInt32	= -21474836502147483649 (32-bit signed value)						
	UInt16	= 065535 (16-bit unsigned value)						
40	SInt16	= -3276832767 (16-bit signed value)						
	UInt8	= 0255 (8-bit unsigned value)						
45	SByte	= -128127 (8-bit signed value)						
	LONGLOCCMD STATECMD PROPCMD SHORTLOCCMD	= 1 = 2 = 3 = 4						
50	ROOMCHNGCMD SESSIONINITCMD SESSIONEXITCMD APPINITCMD APPEXITCMD	= 5 = 6 = 7 = 8 = 9						
55	PROPREQCMD DISAPPEARACTORCMD APPEARACTORCMD REGOBJIDCMD TEXTCMD	= 10 = 11 = 12 = 13 = 14						
60	LAUNCHAPPCMD WHISPERCMD TELEPORTCMD STATEREQCMD	= 16 = 17 = 18 = 19						
65	CLIENT = 1 CO = 254 PO = 255							

Appendix B - Additional Control packet Examples

B.1. State and Property Changes

5

10

15

45

50

55

65

State changes change a string of boolean values. Either the Client or the Server can send these. Each object can have up to 32 different state values. These are represented as bits in a bit string. If the Client wants to set bit 3 of the state variable of an object, 137, it sends the following:

C>S 137 STATECMD 4 0

In binary (given as hexadecimal) this is:

C>S 89 02 00000004 00000000

- Properties take more possible values than states. Similar to state variables, properties are referenced in order. Variables may be represented as a predefined ID (counting from 1) or by an arbitrary string.
- Assuming that the Client has changed its local copy of a variable (with the tag 6) in object 23. It would send a command to the Server as follows:

C>S 23 PROPCMD 6 "a new value"

- The variable ID is a predefined shorthand name for a variable name. These names are predefined and hardcoded into the Client. They generally can't be changed without changing the Client executable. An old Client that sees a variable ID it does not know must ignore the command.
- Some variables will always be defined, "bitmap" for example.

 These are defined in a fixed manner at the Client level. The Client will simply send these variable IDs to the Server which will transparently pass them on to other Clients.
 - The currently defined variable IDs are:

VAR ERROR = 4 // Used in error returns to give error typ
VAR BITMAP = 5 // Filename of Bitmap
VAR PASSWORD = 6 // User's password
VAR ACTORS = 7 // Suggested # of actors to show client (N)

VAR ACTORS = 7 // Suggested # of actors to show client (N)
VAR UPDATETIME = 8 // Suggested update interval (* 1/10 sec.)
VAR CLIENT = 9 // Version of the client software (int)

The client can request the values for one or more properties with the PROPREQCMD:

C>S "Fred" PROPREQCMD VAR_BITMAP
S>C "Fred" PROPCMD VAR_BITMAP "skull.bmp"

A PROPREQUED with no parameters will result in a PROPCMD being returned containing all the properties of the object the request was sent to.

- If a PROPREQCMD is made with a request for a property that doesn't exist, an empty PROPCMD will be returned.
 - A STATEREQCMD requests the Server to respond with the current state.

B.2. Beginning and Exiting Sessions

To begin a session, the Client requests a connection from the Server. After the connection has been established, the Client sends a SessionInitCommand.

The SessionInitCommand should contain the User's textual name (preferably, this textual name is unique across all applications) and the version of the protocol to be used. For example, the User named "Bo" has established a connection and would now like to initiate a session.

C>S CLIENT SESSIONINITCMD VAR_USERNAME "Bo" VAR_PROTOCOL "11"

Currently defined variables for the SessionInitCmd are:

VAR_USERNAME The account name of the user
VAR_PASSWORD User password (preferably a plain text string)
VAR_PROTOCOL The protocol version (int)

15 VAR PROTOCOL The protocol version (int)
VAR_CLIENT Version of the client software being used (int)

Note that the protocol defines the value as a string, but the (int) comment is a constraint on the values that may be in the string.

The Server will send an ack/nak indicating the success of the request. An ack will take the form:

S>C CLIENT SESSIONINITCMD VAR_ERROR 0

A nak will take the form:

S>C CLIENT SESSIONINITCMD VAR_ERROR 1

30 where the value of VAR_ERROR indicates the nature of the problem.

Currently defined make include:

	* ACK)	It's OK
35	* NAK BAD USER 1	l	User name already in use
	* NAK MAX ORDINARY 2	2	Too many ordinary users
	* NAK MAX PRIORITY 3	3	Too many priority users
	* NAK BAD WORLD 4	1	World doesn't exist
	* NAK FATAL 5	5	Fatal error (e.g. can't instantiate user)
40	* NAK BAD PROTOCOL 6	5	Client running old or wrong protocol
	* NAK BAD CLIENTSW 7	7	Client running old, or wrong version
	* NAK BAD PASSWD 8	3	Wrong password for this user
•	* NAK CALL BILLING 9	9	Access denied, call billing
	* NAK TRY SERVER 10)	Try different server

B.3. Beginning and Exiting Application

To begin an application, the Client must have already established a session via the SessionInitCommand. To begin an application, the Client sends an ApplicationInitCommand specifying the desired application:

C>S CLIENT APPINITCMD VAR_APPNAME "StarBright"

The Server will respond with an ack/nak to this command using the same technique discussed under session initialization.

B.4. Launching an Outside Application

The Server may tell the Client to launch an outside application by sending the LaunchAppCommand to the Protocol Object. For example:

S>C PO LAUNCHAPPCMD "Proshare"

65

45

10

25

WHAT IS CLAIMED IS:

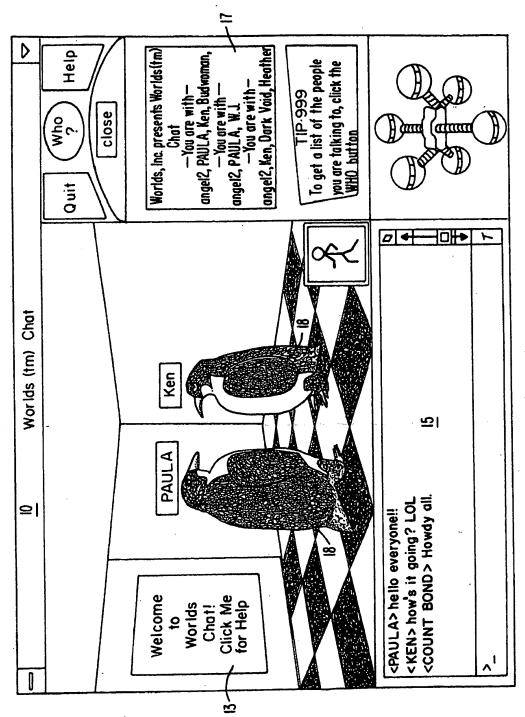
1 An apparatus for interaction between a plurality of users in a three-dimensional, computer-generated 2 graphical space, comprising: 3 . a plurality of client processes, wherein each client 4 process is executed on a digital computer distinct from the 5 digital computers executing others of the plurality of client 6 7 processes; a central server process, executed by a server 8 9 computer; a network coupling the server computer to the 10 digital computers which execute the plurality of client 11 processes, thereby coupling the plurality of client processes 12 13 with the central server process; a plurality of user objects, executed as 14 subprocesses of the central server process, wherein each of 15 16 the plurality of user objects is associated with a user in the 17 plurality of users; an environment database, accessible by each client 18 19 process; \ means for communicating a position of a particular 20 user in the three-dimensional, computer-generated graphical 21 space from the particular user's client process to the other 22 client processes via the central server process, the means for 23 24 communicating programmed according to a protocol; 25 means, on a digital computer executing the 26 particular user's client process, for receiving positions of the users of the other client processes according to the 27 28 protocol via the central server process; and means, on the digital computer executing the 29 particular user's client process, for rendering a 30 three-dimensional view from a viewpoint of the location of the 31 particular user, the rendered view including at least one 32 object from the environment database and, when other users are 33 at locations viewable from the rendered viewpoint, including 34 those other viewable users. 35

- 1 2. The apparatus of claim 1, wherein the
- 2 environment database comprises a single central environment
- 3 database.
- 1 3. The apparatus of claim 1, wherein the
- 2 environment database comprises one copy of the environment
- data at each of the plurality of client digital computers.

ABSTRACT OF THE DISCLOSURE SCALABLE VIRTUAL WORLD CHAT CLIENT-SERVER SYSTEM

5 .

The present invention provides a highly scalable architecture for a three-dimensional graphical, multi-user, interactive virtual world system. In a preferred embodiment a plurality of users interact in the three-dimensional, computer-generated graphical space where each user executes a client process to view a virtual world from the perspective of that user. The virtual world shows avatars representing the other users who are neighbors of the user viewing the virtual word. In order that the view can be updated to reflect the motion of the remote user's avatars, motion information is transmitted to a central server process which provides positions updates to client processes for neighbors of the user at that client process. The client process also uses an environment database to determine which background objects to render as well as to limit the movement of the user's avatar.



F/G /

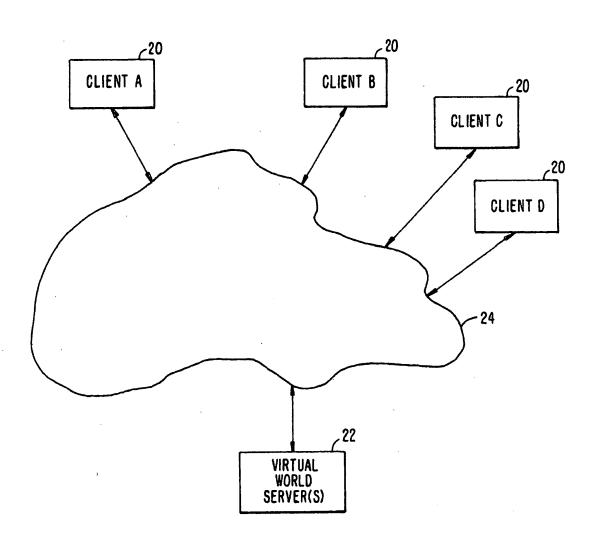


FIG. 2.

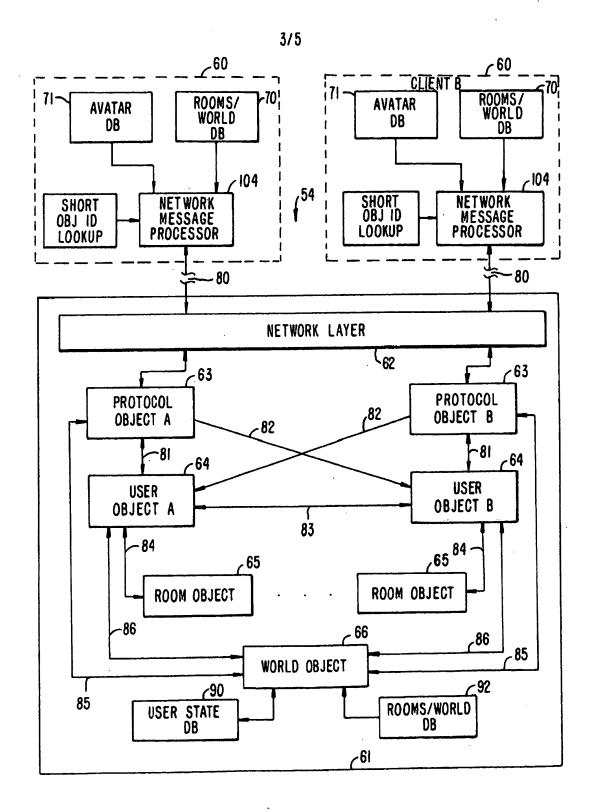


FIG. 3.

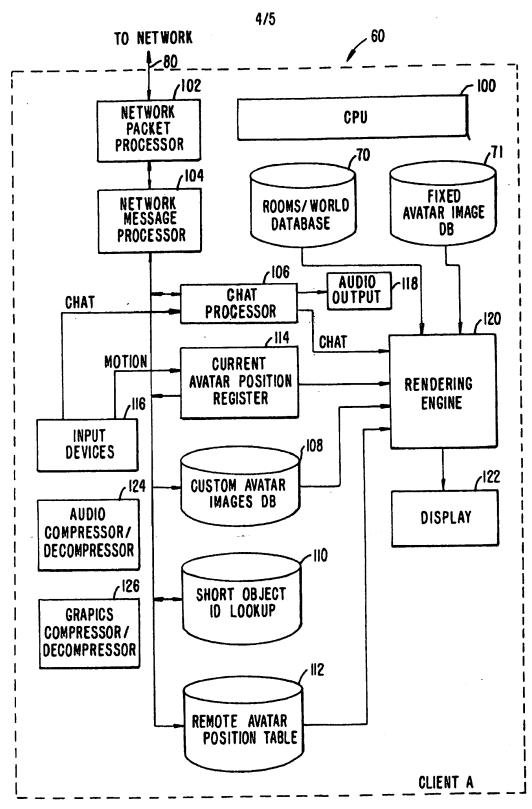
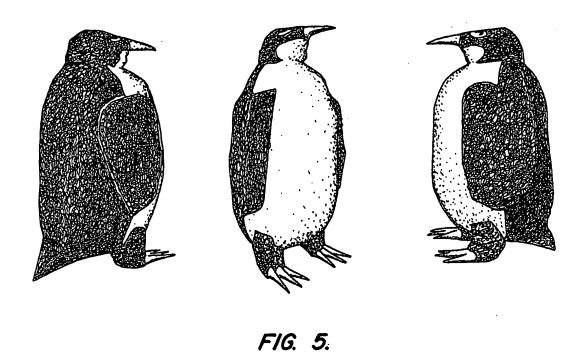


FIG. 4.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: To Be Assigned

Filed:

March 19, 2009

For:

SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: To Be Assigned

Examiner:

To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.:

Mail Stop Amendment **Commissioner for Patents** P.O. Box 1450 Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Prior to examination, please amend the above-identified application (filed herewith) as set forth herein. Authorization is granted to charge small entity additional claim fees, if any, and all other fees necessary to file this Preliminary Amendment, to the Deposit Account Number 50-3196.

Amendment to the title begins on page 3 of this paper.

Amendment to the specification begins on page 4 of this paper.

ELECTRONIC FILING

Transmitted electronically to the Patent and Trademark Office.

Depositor's Name: Anatoly S. Weiser

Date: March 18, 2009 (PST)

Signature: /Anatoly S. Weiser/

AP 019CON3

Patent

Amendments to the claims are reflected in the listing of claims that begins on page 5 of this

paper.

Remarks begin on page 6 of this paper.

AMENDMENT OF THE TITLE

Please change the title to "SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE".

AMENDMENT OF THE SPECIFICATION

Please insert the following heading and paragraph following the title of the specification:

-- CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of and claims priority from U.S. Patent Application Ser. No. 12/353,218; which is a continuation of and claims priority from U.S. Patent Application Ser. No. 11/591,878, filed November 2, 2006, now U.S. Patent No. 7,493,558; which is a continuation of and claims priority from U.S. Patent Application Ser. No. 09/632,154, filed August 3, 2000, now U.S. Patent No. 7,181,690; which is a continuation of and claims priority from U.S. Patent Application Ser. No. 08/747,420, filed November 12, 1996, now U.S. Patent No. 6,219,045; which claims priority from U.S. Provisional Patent Application Ser. No. 60/020,296, filed November 13,1995. The disclosures of all of the foregoing patent documents are incorporated herein by reference.--

CLAIM AMENDMENT

Please amend the claims in accordance with the following listing.

Listing of Claims

Claims 1-3 (Cancelled)

4. A method for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the method comprising:

customizing, using a client device processor, an avatar in response to input by the first user input;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process; and

determining, by the client device, a displayable set of the other user avatars associated with the client device display.

5. The method according to claim 4, further comprising the steps of:

monitoring an orientation of the first user avatar, and

displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar.

- 6. The method according to claim 4, wherein customizing further comprises accessing a first database containing custom avatar images.
- 7. The method according to claim 6, wherein customizing further comprises selecting information from the first database that is used to render the avatar.
- 8. The method according to claim 4, further comprising receiving orientation information associated with fewer than all of the other user avatars.
- 9. The method according to claim 4, further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received.
- 10. The method according to claim 4, wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room.
- 11. A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:
 - a memory storing instructions; and
 - a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

· AP 019CON3

Patent

receive position information associated with fewer than all of the other user avatars;

and

determine a set of the other users' avatars displayable on a screen associated with the client device.

REMARKS

After entry of the above amendments, claims 4-11 will be pending in the application. This paper cancels claims 1-3 without prejudice or disclaimer; and adds new claims 4-11. This paper also changes the title of the invention, and inserts a cross-reference to related applications.

AP 019CON3 Patent

CONCLUSION

Applicants submit that all pending claims are allowable. To discuss any matter pertaining to the instant application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

Respectfully submitted,

Dated: March 18, 2009

/Anatoly S. Weiser/
Anatoly S. Weiser, Reg. No. 43,229
3525 Del Mar Heights Road, #295
San Diego, CA 92130
(858) 720-9431

DocCode - SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 12406968 Document Date: 3/19/2009

The presence of this form in the IFW record indicates that the following document type was received in paper and is scanned and stored in the SCORE database.

• Design Drawings

The original paper documents are in the physical artifact folder. The original documents are scanned using a higher quality capture process and stored in SCORE. A copy of these documents are scanned in IFW using the standard quality scanning process. Defects visible in both IFW and SCORE are indicative of defects in the original paper documents.

To access the documents in the SCORE database, refer to instructions developed by SIRA.

At the time of document entry (noted above):

- Examiners may access SCORE content via the eDAN interface.
- Other USPTO employees can bookmark the current SCORE URL (http://es/ScoreAccessWeb/).
- External customers may access SCORE content via the Public and Private PAIR interfaces.

Form Revision Date: October 12, 2006

Filing Date: 03/19/09

Approved for use through 7/31/2006. 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 12/406,968				
	AF	PLICATION		LED – PART Column 1)	(Column 2)	·s	MALL	ENTITY	OR		R THAN ENTITY
	FOR	:	NUI	MBER FILED	NUMBER EXTRA	RATE	(\$)	FEE (\$)		. RATE (\$)	FEE (\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c)) N/A N/A						N//	Ą	82	1	N/A	
Α	RCH FEE			N/A	N/A	N//	Α	270	1	N/A	
١	CFR 1.16(k), (i), or MINATION FEE		 	N/A	N/A	N//		110		N/A	<u> </u>
	CFR 1.16(o), (p), o	r (q))			 				-		
	OFR 1.16(i)) EPENDENT CLAIN	AS .	8 minus 20 =			<u> </u>	x\$26		OR	x\$52	
	CFR 1.16(h))		2	minus 3 =	*	x\$1	10			x\$220	
Ξ	CFR 1.16(s))		sheets of \$260 (\$1 50 sheet	of paper, the appli							
J	TIPLE DEPEN	DENT CLAIM P	RESEN	T (37 CFR 1.16	S(j))	19	5			390	
tl	ne difference in	column 1 is less	s than ze	ero, enter "0" in	column 2.	тот	AL	462		TOTAL	
		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE		ADDI- TIONAL FEE (\$)	OR	RATE (\$)	ADDI- TIONAI FEE (\$
	Total (37 CFR 1.16(i))	*	Minus	**	=	×	=	-	OR	x =	
	Independent (37 CFR 1.16(h))	•	Minus	***	=	×	=		OR	x =	
		e Fee (37 CFR	1.16(s))			_			UR		
	FIRST PRESENT	TATION OF MULT	IPLE DEF	PENDENT CLAIM	I (37 CFR 1.16(j))	N/A	4		OR	N/A	
						TOTAL ADD'T FE	E		OR	TOTAL ADD'T FEE	
		(Column 1)		(Column 2)	(Column 3)				OR		
,		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	(\$)	ADDI- TIONAL FEE (\$)		RATE (\$)	ADDI- TIONAL FEE (\$
	Total (37 CFR 1.16(i))	•	Minus	**	=	х	=		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	×	= .		OR	x =	
	Application Siz	e Fee (37 CFR									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			N/A	١		OR	N/A				
						TOTAL ADD'T FE	E		OR	TOTAL ADD'T FEE	
	If the "Highest I	Number Previou	ısly Paid ısly Paid	For IN THIS S	n 2, write "0" in colum SPACE is less than 2 SPACE is less than 3 ndependent) is the hig	ADD'T FE n 3. 0, enter "20". enter "3"		n the appropria		ADD'T FEE	

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. Patern 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.

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

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 12/406,968			ing Date 19/2009	To be Mailed		
APPLICATION AS FILED – PART I (Column 1) (Column 2)								SMALL ENTITY 🛛			HER THAN	
	FOR		IUMBER FII		NUMBER EXTRA	А	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)	
☒	BASIC FEE (37 CFR 1.16(a), (b),	or (c))	N/A	N/A			N/A	82	1	N/A		
☒	SEARCH FEE (37 CFR 1.16(k), (i), (i)		N/A		N/A		N/A	270	1	N/A		
(37 CFR 1.16(k), (1), 61 (111)) EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		E	N/A		N/A		N/A	110	1	N/A		
	ΓAL CLAIMS CFR 1.16(i))	(477	3 minus 20 = * 0		0		X \$26 =	0	OR	x \$ =		
	EPENDENT CLAIM CFR 1.16(h))	IS	1 m			X \$110 =	0	1	x \$ =			
	APPLICATION SIZE (37 CFR 1.16(s))	shee is \$2 add	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).			due See						
	MULTIPLE DEPEN	IDENT CLAIM PE	RESENT (3	7 CFR 1.16(j))								
* If t	the difference in colu	umn 1 is less thar	zero, ente	r "0" in column	2.		TOTAL	462		TOTAL		
	APP	LICATION AS (Column 1)	SAMENE	DED – PART (Column 2)		n 3)	SMAL	OR		ER THAN ALL ENTITY		
AMENDMENT	03/19/2009 CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSL PAID FOR	PRESE Y EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
)ME	Total (37 CFR 1.16(i))	* 8	Minus	** 20	= 0		X \$26 =	0	OR	x \$ =		
붊	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0		X \$110 =	0	OR	x \$ =		
AMI	Application Size Fee (37 CFR 1.16(s))											
Ì	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE		
		(Column 1)		(Column 2)	(Column	n 3)						
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSL PAID FOR	Y EXTR		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
MENT	Total (37 CFR 1.16(i))	*	Minus	**	=		x \$ =		OR	x \$ =		
DM	Independent (37 CFR 1.16(h))	*	Minus	***	=		x \$ =		OR	x \$ =		
AMEND	Application Size Fee (37 CFR 1.16(s))											
AM	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
							TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
** If	the entry in column the "Highest Numbo f the "Highest Numb • "Highest Number P	er Previously Paid per Previously Pa	l For" IN TI id For" IN T	HIS SPACE is I	ess than 20, ent less than 3, ente	er "3".	/MARC	nstrument Ex US MONROE	1	er:		

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.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEFARIMENT OF COMMUNICATION OF COMMUNICATION OF COMMUNICATION OF PATENTS
Alexandria, Virginia 22313-1450
www.uspto.gov

FILING RECEIPT

FILING or GRP ART 371(c) DATE FIL FEE REC'D ATTY.DOCKET.NO TOT CLAIMS IND CLAIMS NUMBER UNIT 12/406,968 03/19/2009 2173 462 AP019CON3

CONFIRMATION NO. 6412

35070 ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130

Date Mailed: 04/03/2009

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Applicant(s)

Dave Leahy, Oakland, CA; Judith Challinger, Santa Cruz, CA; B. Thomas Adler, San Francisco, CA: S. Mitra Ardon, San Francisco, CA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 12/353,218 01/13/2009 which is a CON of 11/591,878 11/02/2006 PAT 7,493,558 which is a CON of 09/632,154 08/03/2000 PAT 7,181,690 which is a CON of 08/747.420 11/12/1996 PAT 6.219.045 which claims benefit of 60/020,296 11/13/1995

Foreign Applications

If Required, Foreign Filing License Granted: 03/30/2009

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US 12/406,968

Projected Publication Date: 07/16/2009

Non-Publication Request: No Early Publication Request: No

** SMALL ENTITY **

page 1 of 3

Title

SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE

Preliminary Class

715

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER Title 35, United States Code, Section 184 Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

page 2 of 3

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

COPY MAILED

ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO CA 92130

APR 1 0 2009

OFFICE OF PETITIONS

In re Application of

Leahy, Challinger, Adler, Ardon Application No.: 12/406,968

Filed: March 19, 2009

Attorney Docket No: AP019CON3

: DECISION REFUSING **RULE 47(a) STATUS**

For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT

IN A VIRTUAL SPACE

This is a decision on the petition under 37 CFR 1.47(a) filed March 19, 2009.

The petition under 37 CFR 1.47(a) is dismissed.

Any request for reconsideration under this decision must be submitted within TWO (2) MONTHS from the mail date of this decision. Extensions of time under 37 CFR 1.136(a) are permitted. Failure to respond will result in the abandonment of this application. Any response should be titled "Request for Reconsideration of Petition Under 37 CFR 1.47(b).

The above-identified application was filed on March 19, 2009, and was accompanied by the instant petition under 37 CFR 1.47(a). Petitioner states that status under 37 CFR 1.47(a) was previously granted in applications 08/747,420 and 11/591,878 of which the subject application is a continuation. A copy of the declaration filed in application 08/747,420 accompanied the petition papers.

In accordance with 37 CFR 1.63(d)(3), applicants have submitted a copy of the executed declaration submitted in Application No. 08/747,420, filed November 12, 1996, of which the present filing is a continuation application. The petition was not accompanied by a copy of the decision granting the petition under 37 CFR 1.47(a) in the prior application and the undersigned was not able to retrieve a copy of the decision from application 08/747,420. In the normal

It is noted that the copy of the declaration under 37 CFR 1.63 first filed in application 08/747,420 filed states that: "I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56." All declarations under 37 CFR 1.63 filed after June 1, 2008, must include the language expressly set forth in 37 CFR 1.63(b)(3), which states that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined by §1.56. See 37 CFR 1.63(b)(3). It is further noted that for continuing application filed under 37 CFR 1.53(b), other than continuation-in-part application, the Office will accept an oath or declaration that contains outdated language if the oath or declaration otherwise complied with 37 CFR 1.63 and either: 1) was filed prior to June 1, 2008; or 2) is being filed in continuation or divisional application in which a claim for benefit under 35 USC 120 has been made to a prior-filed co-pending non-provisional application, and the oath or declaration is a copy of the previously accepted oath or declaration that was filed prior to June 1, 2008.

In re Application of Leahy, Challinger, Adler, and Ardon 12/406,968

Page 2

course, if Rule 1.47(a) status is granted in a prior application, the subject continuation application would also be accorded status under 37 CFR 1.47(a). Such status cannot be accorded at this juncture because status under 37 CFR 1.47(a) in the prior application could not be confirmed. Petitioner may file a renewed petition under 37 CFR 1.47(a) and provide a copy of the decision granting Rule 47 status in application 08/747,420.

Further correspondence with respect to this matter should be addressed as follows:

By mail:

Mail Stop Petitions

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

By FAX:

571-273-8300

Attn: Office of Petitions

Telephone inquiries concerning this decision should be directed to the undersigned at (571) 272-3222.

Kenya A. McLaughlin

Petitions Attorney

Office of Petitions

Electronic Acl	Electronic Acknowledgement Receipt					
EFS ID:	5323277					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser.					
Filer Authorized By:						
Attorney Docket Number:	AP019CON3					
Receipt Date:	12-MAY-2009					
Filing Date:	19-MAR-2009					
Time Stamp:	19:18:47					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted wit	h Payment		no			
File Listing	j :					
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Petition for review by the Office of	Decision On Petition From Grand	1722581	no	3	
·	Petitions.		parent-Image.pdf	81e2a5bc459121736eba41f476515a40355f 7da6		J
Warnings:						
Information:						

2	Petition for review by the Office of	Petition Re Absent Inventor- Request For Reconsideration Plu		no	7
	Petitions.	s Petition Original With Decision I n Grandparent. pdf	c78cf5399d66c04e9d8d16b8ac8d4332b6d f3888		,
Warnings:					
Information:					
		Total Files Size (in bytes)	40)55847	

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

For: System and Method for Enabling

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2173

Examiner: To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.: 6412

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

Assignee of the present application, Worlds.com, Inc., hereby notifies the Commissioner that on 12/24/2008 it filed an action for infringement of U.S. Patent Number 7,181,690, which issued on an application in the chain of priority of the present application, against NCsoft Corp., in the United States District Court for the Eastern District of Texas. A copy of the REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING PATENT OR TRADEMARK, filed with the Commissioner in U.S. Patent Number 7,181,690, is attached to this paper.

Respectfully submitted,

Dated: May 12, 2009 /Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229 3525 Del Mar Heights Road, #295

San Diego, CA 92130 (858) 720-9431

S AO 120 (Rev. 3/04)

	Mail Stop 8 REPORT ON THE Patent and Trademark Office ROBOR 1450 ACTION REGARDING A PATENT OF TRADEMARK		
filed in the U.S. D	District CourtEastern District of	on the following in the factor of the factor	
DOCKET NO 6:08cv508	DATE FILED U.S	DISTRICT COURT Eastern District of Texas	
PLAINTIFF		DEFENDANT	
WORLDS.COM INC.		NCSOFT CORP.	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK	
1 US 7,181,690 B1	2/20/2007 V	Vorlds.com Inc. (assignee)	
2			
3			
4			
5			
DATE INCLUDED	ive—entitled case, the following patent(s		
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK	
1			
2			
3			
4	}		
5			
In the abo	ve—entitled case, the following decisio	n has been rendered or judgement issued:	
DESIGNATION OF THE PROPERTY I			
CLERK	(BY) DEPI	JTY CLERK DATE	

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS TYLER DIVISION

WORLDS.COM INC.,		\$	
•		Š	Civil Action No. 6:08-cv-508
	Plaintiff,	Š	
V.		Ş	Jury Demand
		§	•
NCSOFT CORP.,		§	
		Ş	
	Defendant.	§	
		8	

COMPLAINT AND DEMAND FOR TRIAL BY JURY

Plaintiff Worlds.com Inc., for its complaint, hereby alleges as follows:

- Worlds.com Inc. ("Worlds"), is a corporation organized and existing under the laws of the State of Massachusetts, having its principal place of business at 11 Royal Road, Brookline, Massachusetts 02445.
- Defendant NCSoft Corp. ("NCSoft"), is South Korean corporation having a place of business at 6801 N Capital of Texas Hwy. Building 1, Suite #102, Austin, Texas 78731.
- 3. This action is for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* Subject matter jurisdiction is conferred upon this Court under 28 U.S.C. § 1338(a).
- 4. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b).
- 5. Personal jurisdiction over the defendant comports with the United States Constitution because NCSoft is committing, inducing and/or contributing to the acts of patent infringement alleged in this Complaint in this district.

- 6. On February 20, 2007, United States Patent No. 7,181,690 ("the '690 Patent"), entitled "System and Method for Enabling Users to Interact in a Virtual Space," was duly and lawfully issued. A copy of the '690 Patent is attached as Exhibit A.
- Worlds is the owner of the '690 Patent, and has the right to sue and recover damages for infringement thereof.
- 8. NCSoft is engaged in the marketing and sale of massive multiplayer online games, including, but not limited to City of Heroes, City of Villains, Dungeon Runners, Exteel, Guild Wars, Lineage, Lineage II, and Tablula Rasa, in the United States generally, and specifically in the Eastern District of Texas.
- 9. By such acts, NCSoft has directly and/or contributorily infringed, and/or induced infringement of, and is continuing to directly and/or contributorily infringe, and/or induce infringement of, the '690 Patent, by selling and offering to sell such products and by using and inducing others to use, sell, and offer to sell massive multiplayer online games within the scope of the '690 Patent.
- 10. Upon information and belief, after reasonable opportunity for further investigation and discovery, it is likely that the evidence will show that the acts of infringement of NCSoft have occurred with knowledge of the '690 Patent and are willful and deliberate. This action, therefore, is "exceptional" within the meaning of 35 U.S.C. § 285.
- 11. Worlds has been damaged by the infringement by NCSoft and is suffering, and will continue to suffer, irreparable harm and damage as a result of this infringement, unless such infringement is enjoined by this Court.
 - 12. Worlds has no adequate remedy at law.

WHEREFORE, Worlds demands judgment as follows:

- A. An order finding that the '690 Patent is valid and enforceable
- B. An order adjudging defendant NCSoft to have infringed the '690 Patent;
- C. An order finding that defendant NCSoft's acts in infringing the '690 Patent were willful and wanton;
- D. A permanent injunction enjoining NCSoft, together with its officers, agents, servants, employees, and attorneys, and all persons in active concert or participation with any of them who receive actual notice of the order by personal service or otherwise, from infringing the '690 Patent;
- E. An order directing NCSoft to file with the Court, and serve upon Worlds's counsel, within thirty (30) days after entry of the order of injunction, a report setting forth the manner and form in which it has complied with the injunction
- F. An award of damages adequate to compensate Worlds for the infringement of NCSoft, along with prejudgment and postjudgment interest, but in no event less than a reasonable royalty, such damages to be trebled pursuant to the provisions of 35 U.S.C. § 284;
- G. An award of Worlds's reasonable attorney fees and expenses, pursuant to the provisions of 35 U.S.C. § 285;
 - H. An award of World's costs; and
 - I. Such other and further relief as this Court may deem just and proper.

DEMAND FOR TRIAL BY JURY

Pursuant to Fed. R. Civ. P. 38(b), Worlds hereby demands a jury trial on all issues so triable raised in this action.

Respectfully submitted,

By: /s/ Charles Ainsworth
Charles Ainsworth
State Bar No. 00783521
Robert Christopher Bunt
State Bar No. 00787165
PARKER, BUNT & AINSWORTH, P.C.
100 E. Ferguson, Suite 1114
Tyler, TX 75702
903/531-3535
903/533-9687

E-mail: charley@pbatyler.com
E-mail: rebunt@pbatyler.com

OF COUNSEL:

Stephen F. Roth Orville R. Cockings LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP 600 South Avenue West Westfield, NJ 07090-1497 Tel: (908) 654-5000 Fax: (908) 654-7866

ATTORNEYS FOR PLAINTIFF WORLDS.COM INC.

Electronic Acl	Electronic Acknowledgement Receipt					
EFS ID:	5323386					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser.					
Filer Authorized By:						
Attorney Docket Number:	AP019CON3					
Receipt Date:	12-MAY-2009					
Filing Date:	19-MAR-2009					
Time Stamp:	19:38:10					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted with Payment no		no				
File Listing:	•					
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter		ter Re Filing Infringement Acti With Atatched Report Complai		no	6
·			nt-Image.pdf	2f4df72a08bb0b13287d8564ca26a32c11f2 e4af		
Warnings:						
Information:						

Total	Eiloc	Siza	in h	·+~~ \.
ıotai	riies	Size !	ים חוו	vtes):

869063

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 Ack	Electronic Acknowledgement Receipt					
EFS ID:	5323699					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser.					
Filer Authorized By:						
Attorney Docket Number:	AP019CON3					
Receipt Date:	12-MAY-2009					
Filing Date:	19-MAR-2009					
Time Stamp:	21:06:49					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted wi	th Payment	no						
File Listin	g:							
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)			
1	Information Disclosure Statement (IDS)	IDS-Image.pdf	295416	no	no	no	no	2
	Filed (SB/08)		3e2fbe8655e807c50f38bfbf789318e4aa2fa 16c		_			
Warnings:								
Information:								

This is not an U	ISPTO supplied IDS fillable form				
2	Information Disclosure Statement (IDS)	IDS1449-1through4-Image.pdf	816958	no	4
_	Filed (SB/08)		93b61218083ba4fdb48e1c0361c6fe0b113 85207	5	
Warnings:					
Information	1				
This is not an U	JSPTO supplied IDS fillable form				
3	NPL Documents	pub1.pdf	596809	no	2
			a600eee95e66ffd81d69e65ae037da1f841f 2c2c		
Warnings:					
Information	.				
4	NPL Documents	pub2.pdf	833409	no	3
			9d7c16b2f667c74d6b0c46c8d604b35baa3 4a195		
Warnings:					
Information	: 		· · · · · · · · · · · · · · · · · · ·		ı
5	NPL Documents	pub3dash1.pdf	1239840	no	5
			99f1bbd031a1a2c7b64f5e2cad844592783 634ba		
Warnings:					
Information:	: 		· · · · · · · · · · · · · · · · · · ·		1
6	NPL Documents	pub3dash2.pdf	648433	no	3
			14c1ddf0849a5cda82b5368b65b63bca2d6 7170e		
Warnings:					
Information:			-		ı
7	NPL Documents	pub4.pdf	1318597	no	5
			1f4bbec8abd0547643719d2747f542c6579 8cdd8		
Warnings:					
Information:	:				
8	NPL Documents	pub5.pdf	770129	no	3
			b4fab4a796b75bf4a60a80a8f3dff7fec4749 cb8		
Warnings:					
Information:	<u> </u>		 		.
9	NPL Documents	pub6.pdf	268038	no	1
			4fba6a4dd1ec8a5ddb8804254b8930985e7 ea4d9		
Warnings:					
Information	:				

10	NPL Documents	pub7.pdf	1290655	no	6
			99c88cb9d71d46bb664bda19531f43a1576 9df5b		
Warnings:					
Information:					
11	NPL Documents	pub8.pdf	1392573	no	6
			8ec5f57ada3e5c48c8b681e369e3ca4ea021 ab10		
Warnings:					
Information:					
12	NPL Documents	pub9.pdf	879083	no	3
			62bb06848466bd884db1aa931a7c9d9964 bac067		
Warnings:					
Information:					
13	NPL Documents	pub10.pdf	1640338	no	7
			2ddbe56b7766c499e0aab2e9b9a8c2f54ef 6d2e2		
Warnings:					
Information:					
14	NPL Documents	pub11.pdf	1697682	no	8
			cb207d4c3aad5a944084fb2791977b8df21 c19f1		
Warnings:					
Information:					
15	NPL Documents	pub13.pdf	1541426	no	6
		F 3.2 (2.4 F 3.1	0071a01ee96a8f99bad8e76468b75cb469e 2a546		
Warnings:					
Information:					
16	NPL Documents	pub14.pdf	1997227	no	7
	= = = = = = = = = = = = = = = = = =	P 4.2 · · · · P 4.	7bb9fb1f94e9fec67685866866b3810c7feb 7c91		
Warnings:					
Information:					
17	NPL Documents	pub 15 dash 1.pdf	3760042	no	17
17	NI E Documents	pub i 3 dasii i .pui	3250f677fe235fdb3b430e125ad568d2afdd 1038	110	1/
Warnings:					
Information:					
18	NPL Documents	pub 15 dash 2.pdf	2468370	no	11
10	INFL DOCUMENTS	pub i buasnz.par	4c0d010abeb78c5eb97ebd7a08bf96bf14e 10c57	no	''
Warnings:					
waiiiiigs.					

19	NPL Documents	pub12-Conformed.pdf	1881417	no	6		
	W E Bocaments		7a4b5fc8fd9977d48442f666726c6ab1070b 9fc5				
Warnings:	Warnings:						
Information:							
		Total Files Size (in bytes):	25.	336442			

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.

Commissioner for Patent United States Patent and Trademark Offic Washington, D.C. 2023 www.uspto.gc

Paper No. 29

TOWNSEND & TOWNSEND & CREW 8TH FLOOR TWO EMBARCADERO CENTER SAN FRANCISCO, CA 94111-3834

COPY MAILED

SEP 1 9 2000

SPECIAL PROGRAMS OFFICE DAC FOR PATENTS

In re Application of Leahy, Challinger, Adler, and Ardon Application No. 08/747,420 Filed: 12 November, 1996 Attorney Docket No. 17376-5

: DECISION ACCORDING STATUS : UNDER 37 CFR 1.47(a)

This is in response to the renewed petition under 37 CFR 1.47(a)¹ filed on 7 and supplemented by facsimile on 18 August, 2000.

The petition is **GRANTED**.

Petitioner has shown that the non-signing inventor has refused to join in the filing of the above-identified application after having been presented with the application papers. Specifically, the declaration of facts of Philip R. Albert establishes that the non-signing inventor was presented with a copy of the application papers but refused to execute the declaration.

The above-identified application and papers have been reviewed and found in compliance with 37 CFR 1.47(a). This application is hereby accorded Rule 1.47(a) status.

As provided in Rule 1.47(a), this Office will forward notice of this application's filing to the non-signing inventor at the address given in the Declaration. Notice of the filing of this application will also be published in the Official Gazette.

A grantable petition under 37 CFR 1.47(a) requires:

(1) proof that the non-signing inventor cannot be reached or refuses to sign the oath or declaration after having been presented with the application papers (specification, claims and drawings);

⁽²⁾ an acceptable oath or declaration in compliance with 35 U.S.C §§ 115 and 116;

⁽³⁾ the petition fee; and

⁽⁴⁾ a statement of the fast known address of the non-signing inventor.

Application No. 08/747,420

2

After this decision is mailed, the application will be forwarded to the Office of Initial Patent Examination for correction of the bibliographic data sheet and issuance of a corrected Filing Receipt as requested in the facsimile supplement to the petition filed on 18 August, 2000. Thereafter, the file will be forwarded to Publishing Division for processing into a patent.

It is noted that petitioner has withdrawn the petition to correct the non-signing inventor's name.

Telephone inquiries related to this decision should be directed to Petitions Attorney Douglas I. Wood at 703-308-6918.

Beverly M. Flanagan

Supervisory Petitions Examiner

Office of Petitions

Office of the Deputy Commissioner for Patent Examination Policy



United States Patent and Trademark Office

United States Patent and Trademark Office Washington, D.C. 2023

Paper No. 30

COPY MAILED

S. Mitra Ardon 1056 Noe San Fransisco, CA 94114

SEP 1 9 2000

In re Application of Leahy et al. Application No. 08/747,420 Filed: 12 November, 1996 SPECIAL PHUGHAMS OFFICE DAC FOR PATENTS

For: Scalable Virtual Word Chat Client-Server System

Dear Mr. Ardon:

You are named as a joint inventor in the above identified United States patent application, filed under the provisions of 35 U.S.C. 116 (United States Code), and 37 CFR 1.47(a), Rules of Practice in Patent Cases. Should a patent be granted on the application you will be designated therein as a joint inventor.

As a named inventor you are entitled to inspect any paper in the file wrapper of the application, order copies of all or any part thereof (at a prepaid cost per 37 CFR 1.19) or make your position of record in the application. Alternatively, you may arrange to do any of the preceding through a registered patent attorney or agent presenting written authorization from you. If you care to join the application, counsel of record (see below) would presumably assist you. Joining in the application would entail the filing of an appropriate oath or declaration by you pursuant to 37 CFR 1.63

Telephone inquiries regarding this communication should be directed to Petitions Attorney Douglas I. Wood at 703/308-6918. Requests for information regarding your application should be directed to the File Information Unit at 703/308-2733. Information regarding how to pay for and order a copy of the application, or a specific paper in the application, should be directed to Certification Division at 703/308-9726 or 1-800-972-6382 (outside the Washington D.C. area).

Beverly M. Flanagan

Supervisory Petitions Examiner

Office of Petitions

Office of the Deputy Commissioner for Patent Examination Policy

TOWNSEND & TOWNSEND & CREW 8TH FLOOR

TWO EMBARCADERO CENTER SAN FRÂNSICO, CA 94111-3834

Approved for use through 01/31/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO		Complete if Known			
Cubsul	Substitute for form 144001 (5		Application Number	12/406,968	
INF	ORMATION	DIS	CLOSURE	Filing Date	March 19, 2009
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Dave Leahy
	llee se many che	vote ne n	occessod	Art Unit	To Be Assigned
(Use as many sheets as necessary)		Examiner Name	To Be Assigned		
Sheet	1	of	4	Attorney Docket Number	AP 019CON3

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	1	ANDREW REESE et al., Kesami Air Warrior, http://www.atarimagazines.com/startv3n2/kesamiwarrior.html, 1/12/09	
	2	ERIC KRANGEL,\$50,000 Reward Offered For Proofs Worlds.Com Patent Lawsuit is Bogus! www.alleyinsider.com/2009/1/50000-reward-offered-for-proof-worldscom-patent-lawsuit-is-bogus	
		1/14/2009	
	3	Worlds.com Files Suit Against NCsoft for Patent Infringement, http://www.virtualworldsnews.com/2008/12/worldscom-files-suit-against-ncsoft.html, 12/29/2008	
	4	Worlds.com v. NCsoft Update, http://www.virtualworldsnews.com/2008/12/worldscom-v-ncsoft-update.html, 12/29/2008	
	5	Worlds.com Hires IP Firm for Licensing worldscom-hires-ip-firm-for-licensing-to-begin-contacting-virtual-world-companies-shortly.html, 12/11/2008	
	6	Worlds.com patent litigation could ripple through virtual worlds, http://government.zdnet.com/?p=4246, 12/29/2008	
	7	Worlds.com patent litigation could ripple through virtual worlds,http://talkback.zdnet.com/5206-11155-O.html?forumID=1 &threadID=55880, 12/29/2008	
	8	Worlds.com Sues NCsoft For Patent Infringement, http://news.mmosite.com/content/2008-12-29/20081229225459551.shtml, 12/30/2008	
	9	NCsoft Sued for Patent Infringement, http://www.edge-online.com/news/ncsoft-sued-patent-infringement, 12/30/2008	

		···	
Examiner	Date		
Signature	Consid	ered	

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. 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 2 hours 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, P.O. Box 1450, Alexandria, VA 22313-1450. Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b (12-08)
Approved for use through 01/31/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE of a collection of information unless it contains a valid OMB contains.

Substitu	Substitute for form 1449/PTO		Complete if Known		
Gubsuu			Application Number	12/406,968	
INF	ORMATION	DIS	CLOSURE	Filing Date	March 19, 2009
STA	STATEMENT BY APPLICANT			First Named Inventor	Dave Leahy
	/lico as many sho	ote se n	accessed.	Art Unit	To Be Assigned
(Use as many sheets as necessary)		Examiner Name	To Be Assigned		
Sheet	2	of	4	Attorney Docket Number	AP 019CON3

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	10	3D Virtual Worlds Patented! Lawsuits Started, http://www.techdirt.com/articles/20081230/0128173245.shtml, 12/20/2008	
	11	ANGELA GUNN, Virtual worlds firm files IP suit on Christmas Eve, http://www.betanews.com/article/Virtual_worlds_firm_files_/IP_suite_onChristmas_Eve//I230595222, 12/29/2008	
	12	LEIGH ALEXANDER, Report: Worlds.com Hits Ncsoft With Patent Infringement Suit, http://www.gamasutra.conl/php-bin/news_index.php?story=21681, 12/30/2008	
	13	NCSoft sued by MMO patent holders, http://www.bit-tech.net/news/2009/01/06/ncsoft-sued-by-worlds-com/1, 1/6/2009	
	14	NCSoft sued by MMO, http://www.bit-tech.net/showthread.php?t=162548, 1/6/2009	
	15	TATERU NINO, Patents threaten virtual worlds, MMOGs, http://www.massively.com/2008/12/12/patents-hreaten-virtual-wor1ds-mmogs, 12/12/2008	
		,	

Examiner	·	Date	
Signature		Considered	

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. 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 2 hours to complete, including gathering, preparing, and submitting the completed application from 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, 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.

Approved for use through 02/28/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
o a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO	Complete if Known		
	Application Number	12/406,968	
INFORMATION DISCLOSURE	Filing Date	March 19, 2009	
	First Named Inventor	Dave Leahy	
STATEMENT BY APPLICANT	Art Unit	To Be Assigned	
(Use as many sheets as necessary)	Examiner Name	To Be Assigned	
Sheet 3 of 4	Attorney Docket Number	AP 019CON3	

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	16	^{US-} 4,414,621	11-08-1983	Bown et al.	all
	17	^{US-} 4,441,162	04-03-1984	Lillie	all
	18	^{US-} 4,493,021	01-08-1985	Agrawal, et al.	all
	19	^{US-} 4,503,499	03-05-1985	Mason, et al	all
	20	^{US-} 4,551,720	11-05-1985	Levin	all
	21	^{US-} 4,654,483	03-31-1987	lmai, et al.	all
	22	^{US-} 4,686,698	08-11-1987	Tompkins, et al.	all
	23	^{US-} 4,718,005	01-05-1988	Feigenbaum, et al.	all
	24	^{US-} 4,768,150	08-30-1988	Chang, et al.	all
	25	^{US-} 4,777,595	10-11-1988	Strecker, et al.	all
	26	^{US-} 4,780,821	10-25-1988	Crossley	all
	27	^{US-} 4,796,293	01-03-1989	Blinken, et al.	all
	28	^{US-} 4,814,984	03-21-1989	Thompson	all
	29	^{US-} 4,825,354	04-25-1989	Agrawal, et al.	all
	30	US- 4,887,204	12-12-1989	Johnson, et al.	all
	31	^{US-} 4,897,781	01-30-1990	Chang, et al.	ali
	32	^{US-} 4,937,784	06-26-1990	Masai, et al.	all
	33	^{US-} 4,939,509	07-03-1990	Bartholomew, et al.	all
	34	^{US-} 4,949,248	08-14-1990	Caro	all

		FOREIGN	PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (# known)	MM-DD-YYYY		Or Relevant Figures Appear	T°
						Ш
			•			
		·				

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.

This collection of Information is required by 37 CFR 1.97 and 1.98. 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 2 hours 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, 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 (1-800-786-9199) and select option 2.

Approved for use through 02/28/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE vork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO	Complete if Known		
Catalante to Torri 14 to 15	Application Number	12/406,968	
INFORMATION DISCLOSURE	Filing Date	March 19, 2009	
	First Named Inventor	Dave Leahy	
STATEMENT BY APPLICANT	Art Unit	To Be Assigned	
(Use as many sheets as necessary)	Examiner Name	To Be Assigned	
Sheet 4 of 4	Attorney Docket Number	AP 019CON3	

			U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No.'	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	35	^{US-} 4,949,254	08-14-1990	Shorter	all
	36	^{US-} 5,008,853	04-16-1991	Bly, et al.	all
		US-			
		US-			,
		US-			
		US-			
	1	US-			
	<u> </u>	US-			
		US-			
		US-			
	Ì	US-			
		US-			
		US-			
		US-			
	†	US-			
		US-	1		
		US-			
	ļ —	US-			
		US-	<u> </u>		

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T
						L
		•				L
						L
						Г

Examiner	THE PROPERTY OF THE PROPERTY O	Date	•
Signature		Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Transation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. 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 2 hours 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, 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 (1-800-786-9199) and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed:

March 19, 2009

For:

SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit:

2173

Examiner:

To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.: 6412

Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REQUEST FOR RECONSIDERATION OF PETITION UNDER 37 C.F.R. § 1.47(a)

The above-referenced application was filed with signed § 1.63 declarations (from the original utility parent application) of three of the four joint inventors. The remaining joint inventor, S. [Mitra] Ardon, refuses to sign a § 1.63 declaration, notwithstanding the fact that he is under an obligation to do so at the request of the Assignee of the signing inventors' interests, Worlds Inc. ("Worlds").

ELECTRONIC FILING

Transmitted electronically to the Patent and Trademark Office.

Depositor's Name: Anatoly S. Weiser

Date: May 12, 2009

Signature: /Anatoly S. Weiser/

AP 019CON2

Patent

Therefore, Worlds filed a petition on March 18, 2009, that it be allowed to proceed with

prosecution of this application without Mr. Ardon's signature, as allowed under 37 CFR §1.47. The

reasons are fully set forth in the analogous petition filed in August of 2000 in the parent application

serial number 08/747,420; and in the analogous petition entered in November 2, 2006, in the parent

application serial number 11/591,878.

The petition in the instant case was dismissed on April 10, 2009, for the purported reason that

the petition was not accompanied by a copy of the decision granting the petition in application serial

number 08/747,420. We respectfully note that the petition in the instant application was in fact

attached to the decision granting the petition in serial number 08/747,420. The decision was pages

3-5 of the petition in the instant application. A conformed copy of the petition in the instant

application with the attached decision is attached to this paper; it also appears on the PAIR database

on this date. In any event, the defect, such as it is, is being remedied by the attachment to this paper

and by separate filing in the instant application of the decision in serial number 08/747,420.

No payment is believed to be due for filing this Request. If the undersigned is mistaken

regarding the fee, payment of all fees necessary for filing of this Request and the Preliminary

Amendment filed together with this Request, applicable to small entities, is hereby authorized to be

charged to Deposit Account Number 50-3196.

Respectfully submitted,

Dated: May 12, 2009

/Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229

3525 Del Mar Heights Road, #295

San Diego, CA 92130

(858) 720-9431

2

96

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: To Be Assigned

Filed:

January 13, 2009

For:

SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit:

To Be Assigned

Examiner:

To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.:

Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PETITION BY ASSIGNEE FOR FILING PATENT APPLICATION UNDER 37 C.F.R. § 1.47(a)

The above-referenced application is filed herewith with signed § 1.63 declarations (from the original utility parent application) of three of the four joint inventors. The remaining joint inventor, S. [Mitra] Ardon, refuses to sign a § 1.63 declaration, notwithstanding the fact that he is under an obligation to do so at the request of the Assignee of the signing inventors' interests, Worlds Inc. ("Worlds"). Therefore, Worlds petitions that it be allowed to proceed with prosecution of this application without Mr. Ardon's signature, as allowed under 37 CFR §1.47. The reasons are fully set

ELECTRONIC FILING

Transmitted electronically to the Patent and Trademark Office.

Depositor's Name: Anatoly S. Weiser

Date: January 13, 2009

Signature: /Anatoly S. Weiser/

AP 019CON3

Patent

forth in the analogous petition filed in August of 2000 in the parent application serial number

08/747,420; and in the analogous petition of November 2, 2006, in the parent application serial

number 11/591,878. Both petitions in the parent applications were granted or entered, and Assignee

requests Official Notice to be taken of those petitions and the decisions thereon.

Payment of the petition fee under 37 C.F.R. 1.17(g) is made together with the filing of the

present petition, and any shortfall is also authorized to be charged to Deposit Account Number 50-

3196.

Respectfully submitted,

Dated: March 18, 2009

/Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229

3525 Del Mar Heights Road, #295

San Diego, CA 92130

(858) 720-9431

2

98

Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C. 20231

Paper No. 29

TOWNSEND & TOWNSEND & CREW 8TH FLOOR TWO EMBARCADERO CENTER SAN FRANCISCO, CA 94111-3834

COPY MAILED

SEP 1 9 2000

SPECIAL PROGRAMS OFFICE DAC FOR PATENTS

In re Application of Leahy, Challinger, Adler, and Ardon Application No. 08/747,420 Filed: 12 November, 1996 Attorney Docket No. 17376-5

: DECISION ACCORDING STATUS : UNDER 37 CFR 1.47(a)

This is in response to the renewed petition under 37 CFR 1.47(a)¹ filed on 7 and supplemented by facsimile on 18 August, 2000.

The petition is **GRANTED**.

Petitioner has shown that the non-signing inventor has refused to join in the filing of the above-identified application after having been presented with the application papers. Specifically, the declaration of facts of Philip R. Albert establishes that the non-signing inventor was presented with a copy of the application papers but refused to execute the declaration.

The above-identified application and papers have been reviewed and found in compliance with 37 CFR 1.47(a). This application is hereby accorded Rule 1.47(a) status.

As provided in Rule 1.47(a), this Office will forward notice of this application's filing to the non-signing inventor at the address given in the Declaration. Notice of the filing of this application will also be published in the Official Gazette.

§§ 115 and 116;

(3) the petition fee; and

A grantable petition under 37 CFR 1.47(a) requires:

(1) proof that the non-signing inventor cannot be reached or refuses to sign the oath or declaration after having sen presented with the application papers (specification, claims and drawings);

⁽⁴⁾ a statement of the fast known address of the non-signing inventor.

Application No. 08/747,420

2

After this decision is mailed, the application will be forwarded to the Office of Initial Patent Examination for correction of the bibliographic data sheet and issuance of a corrected Filing Receipt as requested in the facsimile supplement to the petition filed on 18 August, 2000. Thereafter, the file will be forwarded to Publishing Division for processing into a patent.

It is noted that petitioner has withdrawn the petition to correct the non-signing inventor's name.

Telephone inquiries related to this decision should be directed to Petitions Attorney Douglas I. Wood at 703-308-6918.

Beverly M. Flanagan

Supervisory Petitions Examiner

Office of Petitions

Office of the Deputy Commissioner

for Patent Examination Policy



United States Patent and Trademark Office

Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C. 20231
Www.uspto.gov
GW 05-00

Paper No. 30

COPY MAILED

S. Mitra Ardon 1056 Noe San Fransisco, CA 94114

In re Application of Leahy et al. Application No. 08/747,420 Filed: 12 November, 1996 For: Scalable Virtual Word Chat Client-Server System SEP 1 9 2000

SPECIAL PHUGHAMS OFFICE DAC FOR PATENTS

Dear Mr. Ardon:

You are named as a joint inventor in the above identified United States patent application, filed under the provisions of 35 U.S.C. 116 (United States Code), and 37 CFR 1.47(a), Rules of Practice in Patent Cases. Should a patent be granted on the application you will be designated therein as a joint inventor.

As a named inventor you are entitled to inspect any paper in the file wrapper of the application, order copies of all or any part thereof (at a prepaid cost per 37 CFR 1.19) or make your position of record in the application. Alternatively, you may arrange to do any of the preceding through a registered patent attorney or agent presenting written authorization from you. If you care to join the application, counsel of record (see below) would presumably assist you. Joining in the application would entail the filing of an appropriate oath or declaration by you pursuant to 37 CFR 1.63.

Telephone inquiries regarding this communication should be directed to Petitions Attorney Douglas I. Wood at 703/308-6918. Requests for information regarding your application should be directed to the File Information Unit at 703/308-2733. Information regarding how to pay for and order a copy of the application, or a specific paper in the application, should be directed to Certification Division at 703/308-9726 or 1-800-972-6382 (outside the Washington D.C. area).

Beverly M. Flanagan

Supervisory Petitions Examiner

Office of Petitions

Office of the Deputy Commissioner for Patent Examination Policy

TOWNSEND & TOWNSEND & CREW 8TH FLOOR TWO EMBARCADERO CENTER SAN FRANSICO, CA 94111-3834

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed:

March 19, 2009

For:

SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit:

2173

Examiner:

To Be Assigned

Attorney File No.: AP 019CON3

Office Action Mailed On: N/A

Confirmation No.: 6412

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

INFORMATION DISCLOSURE STATEMENT

Sir:

Attached hereto are four pages of Form PTO-1449 (or substitute therefor) listing documents believed relevant to the above-referenced Application. It is respectfully requested that these documents be considered by the Examiner and an initialed copy of each page be returned to the undersigned attorney.

This disclosure statement should not be construed as a representation that no other material information as defined in 37 C.F.R. § 1.56(a) exists.

The undersigned attorney believes that this disclosure complies with the requirements of 37 C.F.R. §§1.56, 1.97, & 1.98, and the Manual of Patent Examining Procedure §609. If the Examiner considers otherwise, the Examiner is respectfully requested to call the undersigned attorney so that any deficiencies can be remedied.

A copy of each document, other than U.S. patents and published applications, is enclosed. Some documents may have markings thereon. We do not intend any significance to attach to the markings.

AP 019 CON2 Patent

These documents are not necessarily analogous art.

No fee is believed due for this filing because the filing is made within three months of filing date of a national application and before mailing of a first Office action on the merits. 37. C.F.R. §§1.97(b)(1) & (3).

To discuss any matter pertaining to the above-referenced Application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Respectfully submitted,

Dated: May 12, 2009

/Anatoly S. Weiser/
Anatoly S. Weiser
Intellectual Property Legal Counsel
3525 Del Mar Heights Rd, #295
San Diego, CA 92130
(858) 720-9431
Reg. No. 43,229



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO CA 92130 JUN 1 9 2009

OFFICE OF PETITIONS

In re Application of

Leahy, Challinger, Adler, Ardon Application No.: 12/406,968

: DECISION ON

Filed: March 19, 2009

Attorney Docket No: AP019CON3

: PETITION

For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT

IN A VIRTUAL SPACE

This is in response to the renewed petition under 37 CFR 1.47(a), filed May 12, 2009.

In accordance with 37 CFR 1.63(d)(3), applicants have submitted a copy of the executed declaration submitted in Application No. 08/747,420, filed November 12, 1996, of which the present filing is a continuation application. The petition was not accompanied by a copy of the decision granting the petition under 37 CFR 1.47(a) in the prior application and the undersigned was not able to retrieve a copy of the decision from application 08/747,420. Petitioner has provided a copy of the decision from application 08/747,420 granting Rule 1.47(a) status in the prior application.

As Rule 1.47(a) status was granted in the prior application, this application is hereby <u>accorded</u> <u>Rule 1.47(a) status</u>. As no petition is necessary to accord Rule 1.47(a) status in this application, the petition is **dismissed as moot**. No petition fee is necessary.

Pursuant to 37 CFR 1.47(c), the Office is dispensing with the notice provision in the present application because notice was provided after the grant of Rule 1.47(a) status in the prior application.

The matter is being referred to the Office of Patent Application Processing for further review.

Telephone inquiries regarding this decision should be directed to the undersigned at (571) 272-3222.

Kenya A. McLaughlin Petitions Attorney Office of Petitions



12/406,968

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEFARIMENT OF COMMUNICATION OF COMMUNICATION OF COMMUNICATION OF PATENTS
Alexandria, Virginia 22313-1450
www.uspto.gov

Dave Leahy

FIRST NAMED APPLICANT APPLICATION NUMBER FILING OR 371(C) DATE 03/19/2009

ATTY. DOCKET NO./TITLE AP019CON3

35070 ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130

CONFIRMATION NO. 6412 PUBLICATION NOTICE



Title:SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE

Publication No.US-2009-0183089-A1 Publication Date: 07/16/2009

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

page 1 of 1



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
12/406,968	12/406,968 03/19/2009 Dave Leahy		AP019CON3	6412	
35070 ANATOLY S.	7590 02/01/201 WEISER	EXAMINER			
3525 DEL MAI	R HEIGHTS ROAD, #	295	NGUYEN, CAO H		
SAN DIEGO, CA 92130			ART UNIT	PAPER NUMBER	
			2173		
			MAIL DATE	DELIVERY MODE	
			02/01/2010	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.

	Application No.	Applicant(s)				
Office Action Comments	12/406,968	LEAHY ET AL.				
Office Action Summary	Examiner	Art Unit				
	Cao (Kevin) Nguyen	2173				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address				
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 <u>19 M</u>	<u>arch 2009</u> .					
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 <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) <u>4-11</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdraw	vn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>4-11</u> 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 Examine	r.					
10)☐ The drawing(s) filed on is/are: a)☐ acce	epted 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)	4) Interview Summary Paper No(s)/Mail D					
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) 5) ☐ Notice of Informal Patent Application						
Paper No(s)/Mail Date 5/09	6) Other: .					

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06) Application/Control Number: 12/406,968 Page 2

Art Unit: 2173

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 4-11 are rejected on the ground of nonstatutory double patenting over claims 1-20 of U. S. Patent No. 7,181,690 B1 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Claim 1 (US Patent No. 7,181,690). A method	Claim 1 (Instant Application).
for operating a server to enable a plurality of	A method for enabling a first user to interact
users to interact in a virtual space, wherein	with other users in a virtual space, each user

Art Unit: 2173

each user has a computer associated therewith, wherein each computer has a client process associated therewith, wherein each client process has an avatar associated therewith, wherein the server has a process associated therewith, and wherein each client process is in communication with the server process, comprising: (a) receiving, from each client process by the server process, data indicating a position of the avatar associated with the client process; and (b) synchronously disseminating less than all of the positions of the avatars not associated with a particular client process to each of the other client processes so that the particular client process can determine from the positions a set of avatars that are to be displayed.

being associated with a three dimensional avatar representing the user in the virtual space, the method comprising:
customizing, using a client device processor, an avatar in response to input by the first user input;
receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process; and determining, by the client device, a displayable set of the other user avatars associated with the client device display.

Page 3

Art Unit: 2173

	1
1	
1	
1	
I I	
1	
l .	

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to (a) receiving, from each client process by the server process, data indicating a position of the avatar associated with the client process; and (b) synchronously disseminating less than all of the positions of the avatars not associated with a particular client process to each of the other client processes so that the particular client process can determine from the positions a set of avatars that are to be displayed, but may not perform any unauthorized operations on the first computer of the instant application during prosecution of the application which matured into a patent. See also MPEP § 804.

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.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiio (US Patent No. 5,491,743) in view of Farmer et al. (US Patent No. 6,229,533).

Regarding claim 4, Shiio discloses a method for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the method comprising: customizing, using a client device processor, an avatar in response to input by the first user input (animated characteristics representing operators in virtual conference; see col. 5, lines 16-62); receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process (see col. 5, lines 42-60); however, Shiio fails to explicitly teach determining, by the client device, a displayable set of the other user avatars associated with the client device display.

Farmer discloses determining from the received positions a subset of the other users' avatars that are to be displayed to the first user (..ghost objects have anonymity, and have limited interaction choices; see col. 5, lines 1-36).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio and Farmer before him at the time the invention was, modify the virtual conference system user of Shiio to include the ghost object for a virtual world, as taught by Farmer. One would have been motivated to make such a combination in order to in order to promote personal, one-on-one type relationships which encourage a sense of community, most locales have limits to the number of avatars that can be physically present at one time.

Regarding claim 5, Shiio discloses further comprising the steps of: monitoring an orientation of the first user avatar, and displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar (see figures 4-5).

Regarding claim 7, Farmer discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 13, lines 13-51 and figures 4-5).

Regarding claim 8, Shiio discloses wherein customizing further comprises selecting information from the first database that is used to render the avatar (see col. 13, lines 14-67).

Regarding claims 9, Shiio discloses further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received (see col. 6, lines 49-67 and col. 7, lines 1-21).

Regarding claims 10, Shiio discloses wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room (see col. 7, lines 15-62.)

Claim 11 differs from claim 4 in that "create a custom avatar in response to input by the first user; receive position information associated with fewer than all of the other user avatars; and determine a set of the other users' avatars displayable on a screen associated with the client device." which read on Shiio (see col. 14, lines 42-67).

Application/Control Number: 12/406,968

Art Unit: 2173

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure (see PTO-892).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cao (Kevin) Nguyen whose telephone number is (571)272-4053.

The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kieu Vu can be reached on (571)272-4057. 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.

/Cao (Kevin) Nguyen/

Primary Examiner, Art Unit 2173

Page 7

1/27/10

113

Notice of References Cited	Application/Control No. 12/406,968	Applicant(s)/Patent Under Reexamination LEAHY ET AL.	
Notice of References Cited	Examiner	Art Unit	
	Cao (Kevin) Nguyen	2173	Page 1 of 1

U.S. PATENT DOCUMENTS

	O.O. I AILM DOCUMENTO							
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification			
*	Α	US-7,493,558	02-2009	Leahy et al.	715/704			
*	В	US-5,491,743	02-1996	Shiio et al.	709/204			
	C	US-						
	D	US-						
	Е	US-						
	F	US-						
	G	US-						
	Н	US-						
	_	US-						
	J	US-						
	K	US-						
	L	US-						
	М	US-						

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	Q					
	R					
	S					
	Т					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	٧	
	w	
	х	

*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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20100130

Approved for use through 01/31/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO		Complete if Known			
		Application Number	12/406,968		
INF	ORMATION	DIS	CLOSURE	Filing Date	March 19, 2009
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Dave Leahy
	//loo oo many sha	ata an m		Art Unit	To Be Assigned
(Use as many sheets as necessary)			ecessary)	Examiner Name	To Be Assigned
Sheet	1	of	4	Attorney Docket Number	AP 019CON3

		NON PATENT LITERATURE DOCUMENTS			
Examiner Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
/K.N	_/ 1	ANDREW REESE et al., Kesami Air Warrior, http://www.atarimagazines.com/startv3n2/kesamiwarrior.html, 1/12/09			
/K.N./	2	ERIC KRANGEL,\$50,000 Reward Offered For Proofs Worlds.Com Patent Lawsuit is Bogusl www.alleyinsider.com/2009/1/50000-reward-offered-for-proof-worldscom-patent-lawsuit-is-bogus			
800000000		1/14/2009			
	3	Worlds.com Files Suit Against NCsoft for Patent Infringement, http://www.virtualworldsnews.com/2008/12/worldscom-files-suit-against-ncsoft.html, 12/29/2008			
		Worlds.com v. NCsoft Update, http://www.virtualworldsnews.com/2008/12/worldscom-v-ncsoft-update.html, 12/29/2008			
000000000000000000000000000000000000000	5	Worlds.com Hires IP Firm for Licensing worldscom-hires-ip-firm-for-licensing-to-begin-contacting-virtual-world-companies-shortly.html, 12/11/2008			
6		Worlds.com patent litigation could ripple through virtual worlds, http://government.zdnet.com/?p=4246, 12/29/2008			
		Worlds.com patent litigation could ripple through virtual worlds,http://talkback.zdnet.com/5206-11155-O.html?forumID=1 &threadID=55880, 12/29/2008			
V	Worlds.com Sues NCsoft For Patent Infringement, http://news.mmosite.com/content/2008-12-29/20081229225459551.shtml, 12/30/2008				
/K.N./ 9		NCsoft Sued for Patent Infringement, http://www.edge-online.com/news/ncsoft-sued-patent-infringement, 12/30/2008			

Examiner	/O = - N =/	1	Date	01/30/2010
Signature	/Cao Nguyen/	- 10	Considered	01/00/2010

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. 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 2 hours 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, 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.

PTO/SB/08b (12-08)
Approved for use through 01/31/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitu	Substitute for form 1449/PTO		Complete if Known		
Gubulille for form 14431 10		Application Number	12/406,968		
INF	ORMATION	DIS	CLOSURE	Filing Date	March 19, 2009
STA	STATEMENT BY APPLICANT			First Named Inventor	Dave Leahy
				Art Unit	To Be Assigned
	(Use as many sheets as necessary)		Examiner Name	To Be Assigned	
Sheet	2	of	4	Attorney Docket Number	AP 019CON3

		NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*					
/K.N./	10	3D Virtual Worlds Patented! Lawsuits Started, http://www.techdirt.com/articles/20081230/0128173245.shtml, 12/20/2008			
/K.N./	11	ANGELA GUNN, Virtual worlds firm files IP suit on Christmas Eve, http://www.betanews.com/article/Virtual_worlds_firm_files_/IP_suite_onChristmas_Eve//I230595222, 12/29/2008			
/K.N.	/ 12	LEIGH ALEXANDER, Report: Worlds.com Hits Ncsoft With Patent Infringement Suit, http://www.gamasutra.conl/php-bin/news_index.php?story=21681, 12/30/2008			
/K.N.	/ 13	NCSoft sued by MMO patent holders, http://www.bit-tech.net/news/2009/01/06/ncsoft-sued-by-worlds-com/1, 1/6/2009			
/K.N.	14	NCSoft sued by MMO, http://www.bit-tech.net/showthread.php?t=162548, 1/6/2009			
/K.N./	15	TATERU NINO, Patents threaten virtual worlds, MMOGs, http://www.massively.com/2008/12/12/patents-hreaten-virtual-wor1ds-mmogs, 12/12/2008			
		,			

		T	1
I Examiner	l e e e e e e e e e e e e e e e e e e e	l Date	! I
	/Cao Nguyen/	1 ~	J 01/30/2010 I
Signature	, odo r gayon	Considered	01/00/2010

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. 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 2 hours 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, 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.

Approved for use through 02/28/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
o a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO	Complete if Known		
Sabdate to tom 1745. 10	Application Number 12/406,968		
INFORMATION DISCLOSURE	Filing Date	March 19, 2009	
	First Named Inventor	Dave Leahy	
STATEMENT BY APPLICANT	Art Unit	To Be Assigned	
(Use as many sheets as necessary)	Examiner Name	To Be Assigned	
Sheet 3 of 4	Attorney Docket Number	AP 019CON3	

Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
		Number-Kind Code ^{2 (# known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
/K.N./	16	^{US-} 4,414,621	11-08-1983	Bown et al.	all
8	17	^{US-} 4,441,162	04-03-1984	Lillie	all
0000	18	^{US-} 4,493,021	01-08-1985	Agrawal, et al.	all
000	19	^{US-} 4,503,499	03-05-1985	Mason, et al	all
	20	^{US-} 4,551,720	11-05-1985	Levin	all
	21	^{US-} 4,654,483	03-31-1987	lmai, et al.	all
8000	22	^{US-} 4,686,698	08-11-1987	Tompkins, et al.	all
	23	^{US-} 4,718,005	01-05-1988	Feigenbaum, et al.	all
-	24	^{US-} 4,768,150	08-30-1988	Chang, et al.	all
-	25	^{US-} 4,777,595	10-11-1988	Strecker, et al.	all
-	26	^{US-} 4,780,821	10-25-1988	Crossley	all
-	27	^{US-} 4,796,293	01-03-1989	Blinken, et al.	all
	28	^{US-} 4,814,984	03-21-1989	Thompson	all
-	29	US- 4,825,354	04-25-1989	Agrawal, et al.	all
-	30	US- 4,887,204	12-12-1989	Johnson, et al.	all
-	31	^{US-} 4,897,781	01-30-1990	Chang, et al.	all
	32	^{US-} 4,937,784	06-26-1990	Masai, et al.	all
$oldsymbol{V}$	33	^{US-} 4,939,509	07-03-1990	Bartholomew, et al.	all
/K N /	34	US-4,949,248	08-14-1990	Caro	all

		FORE	IGN PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	י
				-		L
						L
						L
						Ļ
						L
						Γ

Examiner Signature	/Cao Nguven/	Date Considered	01/30/2010

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language

the appropriate symbols as indicated on the document under WIPO Standard S1.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. 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 2 hours 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 his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, 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 (1-800-786-9199) and select option 2.

Approved for use through 02/28/2009. 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 conection of informa	don unless it contains a valid Olylo control number.
	Substitute for form 1449/PTO	Co	mplete if Known
		Application Number	12/406,968
	INFORMATION DISCLOSURE	Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
	STATEMENT BY APPLICANT	Art Unit	To Be Assigned
	(Use as many sheets as necessary)	Examiner Name	To Be Assigned
_	Sheet 4 of 4	Attorney Docket Number	AP 019CON3

Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/K.N	35	US- 4,949,254	08-14-1990	Shorter	all
/K N /	36	^{US-} 5,008,853	04-16-1991	Bly, et al.	all
		US-			
		UŞ-			,
		US-			

		FORE	<u>IGN PATENT DOCU</u>			
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	י
		,			ļ	L
		•				L
						L
						Γ

Examiner Signature	/Cao Nguyen/		Date Considered	01/30/2010
	/Odu Nauven/	1		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through clation if not in conformance and not considered, Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Iransation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. 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 2 hours 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 his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, 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 (1-800-786-9199) and select option 2.

Search Notes				

Application/Control No.	Applicant(s)/Pate Reexamination	ent under
12/406,968	LEAHY ET AL.	
Examiner	Art Unit	
Cao (Kevin) Nauven	2173	

SEARCHED				
Class	Subclass	Date	Examiner	
715	704-706 853-855 751-753 762	1/28/2010	CN	

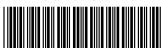
INTERFERENCE SEARCHED					
Class	Subclass	Date	Examiner		

SEARCH NOTES (INCLUDING SEARCH STRATEGY)			
	DATE	EXMR	
east searched, npl and us-pgpub	1/28/2010	CN	

U.S. Patent and Trademark Office

Part of Paper No. 20100130

Ind	ex	of	CI	air	ns	



Application/Control No.	Applicant(s)/Patent under Reexamination				
12/406,968	LEAHY ET AL.				
Examiner	Art Unit				
Cao (Kevin) Nguyen	2173				

√	Rejected
=	Allowed

_	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
-	Interference

A	Appeal
0	Objected

		_								_	i
Cla	Claim					Date	_		_	\blacksquare	
	<u>8</u>										
Final	Original	1/27/10									
i i i	Ţ	1/2									
	1										
	2										
	3									П	
	1 2 3 4	V								П	
	5	Ė							\vdash	П	
	6								\vdash	Н	
	7									H	
	8					\vdash			\vdash	Н	
	9	-				┝			┝	Н	
-	40									Н	
\vdash	10	.1	_	H	_	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Н	
<u></u>	11	V		H		<u> </u>	-	<u> </u>	\vdash	Ш	
	12	_		Ш		_	<u> </u>		<u> </u>	Ш	
	13	<u> </u>		Ш		<u> </u>	<u> </u>	<u> </u>	<u> </u>	Щ	
\vdash	14	_		Ш		$ldsymbol{ldsymbol{ldsymbol{eta}}}$			$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Ш	
	15	$ldsymbol{ld}}}}}}$				$ldsymbol{ld}}}}}}$			$ldsymbol{ld}}}}}}$	Ш	
	16									Ш	
	17										
	18 19										
	19										
	20										
	21										
	22										
	23										
	24										
	25									П	
	26										
	27										
	28					\vdash			\vdash	Н	
	29	\vdash				\vdash			\vdash	Н	
	30								\vdash	Н	
	31	\vdash		Н		\vdash			\vdash	Н	
	32	\vdash		H	\vdash	\vdash			\vdash	Н	
	33	\vdash	\vdash	H	-	\vdash			\vdash	\vdash	
	34			H		\vdash			\vdash	Н	
\vdash	35	\vdash		H		\vdash	 		\vdash	Н	
	36	\vdash		H		\vdash	 	 	\vdash	\vdash	
-	37	-		H		\vdash	-	-	\vdash	Н	
		-		H		-	<u> </u>	-	\vdash	Н	
\vdash	38	_	_	H	_	_	-		<u> </u>	Н	
	39	_	_	H	_	_			<u> </u>	Н	
	40	_		H		_			_	Ш	
-	41					_			_	Ш	
<u></u>	42	\vdash		H	_	\vdash	<u> </u>	<u> </u>	\vdash	Щ	
	43	<u> </u>	_	Ш	_	<u> </u>	<u> </u>		<u> </u>	Щ	
\vdash	44	<u> </u>	_			<u> </u>			<u> </u>	Щ	
	45					$ldsymbol{ld}}}}}}$			$ldsymbol{ldsymbol{ldsymbol{ldsymbol{eta}}}$	Ш	
	46									Ш	
	47									\Box	
	48										
	49										
	50										

Cla	Date									
										П
-	Original									
Final	igi									
ш.	ŏ									
										\vdash
	51 52 53					_			_	Щ
	52					<u> </u>			_	Щ
	53									Щ
	54									Щ
	55									
	56									
	57									
	58									
	59									
	60									
	61									
	62									
	63					\vdash			\vdash	H
	64					\vdash			\vdash	\vdash
	65			H	\vdash	\vdash	\vdash	\vdash	\vdash	$\vdash\vdash$
	00	\vdash		Н	\vdash	\vdash	\vdash	\vdash	\vdash	$\vdash\vdash$
	66				\vdash	<u> </u>			<u> </u>	$\vdash\vdash$
	67					_			_	
	68					_			_	Щ
	69 70 71 72 73 74 75 76 77					_				Щ
	70									
	71									
	72									
	73									
	74									
	75									
	76									
	77									
	78					\vdash				Н
	79					\vdash			\vdash	\vdash
	80									\dashv
	81	_			_	\vdash			\vdash	\vdash
	82					\vdash			\vdash	\dashv
	82					_			_	\dashv
	83					_			_	Н
	84					_			_	Ш
	85					_			_	Щ
	86			Ш		_	_	Ш	<u> </u>	Щ
	87					$ldsymbol{ldsymbol{ldsymbol{eta}}}$			$ldsymbol{le}}}}}}}}$	Ш
	88									Ш
	89									\bigsqcup
	90									
	91									
	92									П
	93									П
	94			П	П	\vdash			\vdash	Н
	95	\vdash			\vdash	\vdash			\vdash	Н
	96			Н	Н	\vdash			\vdash	Н
	96			Н	Н	\vdash	-		\vdash	Н
				Н		_	-		_	Н
	98			H		<u> </u>	<u> </u>		<u> </u>	Щ
	99			Ш		<u> </u>	_	Ш	<u> </u>	Щ
	100									

Claim		Date								
							Ĺ			\Box
Final	Original									
	101									
	102									
	103									
	104									
	105									
	106									
	107									
	108									
	109									
	110									
	111						H			
	112				-		H			\vdash
	113				-		\vdash	Н	_	
	114 115				\vdash		H	Н	\vdash	
	116				\vdash		\vdash	Н	\vdash	\vdash
	116 117				\vdash	\vdash	H	Н	\vdash	\vdash
	118						H			\vdash
	119									
	120									
	121									
	122									
	123									
	124 125									
	125									
	126									
	127									
	128									
	129									
	130									
	131									
	132									
	133									
	134				_			Ш	_	
	135							H		
	136				_		H	Н	_	
	137 138						\vdash	Н		
	138						H	H	-	
	140	\vdash			\vdash	-	\vdash	Н	\vdash	\vdash
	141				_		H		_	
	142						H			
	143						H	Н		
	144				Н		Н	Н	Н	
	145				Н		Н	Н		\vdash
	146						H	Н		
	147							П		
	148							П		
	149									
	150									

	Attorney Docket Number		AP019CON3	
(Not for submission under or of it 1.00)	Examiner Name	Nguyen, Cao H.		
(Not for submission under 37 CFR 1.99)	Art Unit		2173	
INFORMATION DISCLOSURE	First Named Inventor Leahy,		y, Dave	
	Filing Date		2009-03-19	
	Application Number		12406968	

	U.S.PATENTS Remove										
Examiner Initial*	Cite No			Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear						
	1	4531184		1985-07-23	WIGAN et al.	О					
	2	4555781		1985-11-26	BALDRY et al.	О					
	3	4572509		1985-02-25	SITRICK	О					
	4	4738451		1988-04-19	LOGG	О					
	5	4805134		1989-02-14	CALO et al.	О					
	6	4953159		1990-08-28	HAYDEN et al.	О					
	7	4976438		1990-12-11	TASHIRO et al.	О					
	8	5014267		1991-05-07	TOMPKINS et al.	О					

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

9	5083271		1992-01-21	THACHER et al.	o
10	5206934	А	1993-04-23	NAEF III	О
11	5347306	А	1994-09-13	NITTA	О
12	5379374	А	1995-01-03	ISHIZAKI et al.	О
13	5481297	А	1996-01-02	CASH et al.	О
14	5491743	А	1996-02-13	SHIIO et al.	O
15	5502727	А	1996-03-26	CATANZARO et al.	0
16	5537548	А	1996-07-16	FIN et al.	O
17	5630757	А	1997-05-20	GAGIN et al.	О
18	5642337	А	1997-06-24	OSKAY et al.	О
19	5659691	А	1997-08-19	DURWARD et al.	О

(Not for submission under 37 CFR 1.99)

Application Number		12406968	
Filing Date		2009-03-19	
First Named Inventor	Leahy	, Dave	
Art Unit		2173	
Examiner Name	Nguyen, Cao H.		
Attorney Docket Number		AP019CON3	

20	5667440	А	1997-09-16	SASAKI et al.	О
21	5736982	А	1998-04-07	SUZUKI et al.	O
22	5745711	А	1998-04-28	KITAHARA et al.	0
23	5748894	А	1998-05-05	ISHIZAKI et al.	0
24	5784570	А	1998-07-21	FUNKHOUSER	О
25	5799320	А	1998-08-25	KLUG	О
26	5816920	А	1998-10-06	HANAI	0
27	5880731	А	1999-03-09	LILES et al.	0
28	5950202	А	1999-09-07	DURWARD et al.	0
29	5958006	А	1999-09-28	EGGLESTON et al.	0
30	6175842	B1	2001-01-16	KIRK et al.	0

Application Number		12406968			
Filing Date		2009-03-19			
First Named Inventor	Leahy	Leahy, Dave			
Art Unit		2173			
Examiner Name	Nguyen, Cao H.				
Attorney Docket Number		AP019CON3			

	31	6229533	B1	2001-05	5-08	FARMER et al		0		
	32	6734885	B1	2004-05	5-11	MATSUDA		0		
	33	6961755	B2	2005-01	I-11	MATSUDA		0		
	34	0035314	Е	1996-08	3-20	LOGG		0		
If you wis	h to ad	d additional U.S. Pater	nt citatio	n inform	ation pl	ease click the	Add button.		Add	
			U.S.P	ATENT	APPLI	CATION PUBL	LICATIONS		Remove	
Examiner Initial*	Cite N	Publication Number	Kind Code ¹	Publication Date		Name of Patentee or Applicant of cited Document		Releva	Columns,Lines whe Int Passages or Rele s Appear	
	1									
If you wis	h to ad	d additional U.S. Publi	shed Ap	plication	ı citatioı	n information p	lease click the Add	d button	Add	
				FOREIG	GN PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*	Cite No	Foreign Document Number³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	e or v F	Pages,Columns,Line where Relevant Passages or Relevar Figures Appear	T5
	1	1995-08793	WO		A1	1995-03-30	DURWARD et al.			
	2	1995-10157	wo		A1	1995-04-13	LUDWIG et al.			

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	Leahy, Dave		
Art Unit		2173		
Examiner Name	Nguyen, Cao H.			
Attorney Docket Number		AP019CON3		

3	1995-31059	WO	A1	1995-11-16	PERLMAN	
4	1997-43718	wo	A1	1996-11-20	WATERS	
5	1999-16226	wo	A1	1999-04-01	DILLON et al.	
6	2002-25586	wo	A2	2002-03-28	ELBER et al.	
7	2242626	CA	С	2002-10-29	MALKIN et al.	
8	0279558	EP	A1	1988-08-24	BIANCO et al.	
9	0645726	EP	A2	1995-03-29	CARLTON et al.	
10	0645931	EP	A1	1995-03-29	SCHWARTZ et al.	
11	0713171	EP	A1	1996-05-22	TANAKA	
12	0717544	EP	A2	1996-06-19	ALTOM et al.	
13	0736832	EP	A2	1996-10-09	FUNKHOUSER	

(Not for submission under 37 CFR 1.99)

Application Number		12406968	
Filing Date		2009-03-19	
First Named Inventor	Leahy	, Dave	
Art Unit		2173	
Examiner Name	Nguye	en, Cao H.	
Attorney Docket Number		AP019CON3	

14	0867838	EP	A2	1998-09-30	STROHECKER et al.	
15	2227625	GB	А	1990-08-01	ORDISH	
16	2326802	GB	А	1998-12-30	DIAS et al.	
17	1993-05113941	JP	А	1993-05-07	KAWATE et al.	
18	1994-06121311	JP	А	1994-04-28	MENJU	
19	1994-06152765	JP	A	1994-05-31	WATANABE	
20	1994-06165173	JP	A	1994-06-10	HIBINO et al.	
21	1995-07056497	JP	A	1995-03-03	ATSUSHI et al.	
22	1995-07147673	JP	А	1995-06-06	NAGASHIMA et al.	
23	1996-08063416	JP	А	1996-03-08	KITANO	
24	1996-08087605	JP	А	1996-04-02	KITANO	

(Not for submission under 37 CFR 1.99)

Application Number		12406968			
Filing Date		2009-03-19			
First Named Inventor	Leahy	Leahy, Dave			
Art Unit		2173			
Examiner Name	Nguyen, Cao H.				
Attorney Docket Number		AP019CON3			

25	1996-08131655	JP	А	1996-05-28	KANGO et al.	
26	1996-08212173	JP	А	1996-08-20	INUDOU et al.	
27	1996-08256146	JP	A	1996-10-01	GAGIN et al.	
28	1997-09023275	JP	A	1997-01-21	TANIGAWA	
29	1997-09034874	JP	А	1997-02-07	HOSOYA et al.	
30	1997-09081400	JP	А	1997-03-28	KAZUKI et al.	
31	1997-09081781	JP	А	1997-03-28	MORIUCHI	
32	1997-09164271	JP	А	1997-06-24	KIKUCHI et al.	
33	1997-09244845	JP	А	1997-09-19	REKIMOTO	
34	1998-10105538	JP	А	1998-04-24	MIYASHITA et al.	
35	1998-10207684	JP	А	1998-08-07	KIOCHI et al.	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy, Dave			
Art Unit		2173		
Examiner Name	Nguyen, Cao H.			
Attorney Docket Number		AP019CON3		

If you wish to add additional Foreign Patent Document citation information please click the Add button Add								
NON-PATENT LITERATURE DOCUMENTS Remove								
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T 5					
	1	http://1997.webhistory.org/www.lists/www-vrml.1994/0132.html, WEB: Webworld, print date 03/20/2009, 1 page						
	2	http://elonka.com/SimuTimeLine.html, Simutronics Timeline, print date 4/2/2009, 3 pages						
	3	http://archive.legendsofkesmai.com/iok/miscellaneous/articles/worlds_of_kesmai.htm, Worlds of Kesmai Article, print date 03/25/2009, 3 pages						
	4	http://archive.legendsofkesmai.com/iok/guides/iok_bg_kompanion.htm, IoK BG Kompanion A Comprehensive Guide to the Basic Game of Island of Kesmai, 2005, print date 03/25/2009, 53 pages						
	5	http://www.digibarn.com/collections/games/maze-war/hardware-maze-mit/index.html, The MAZE Game, print date 10/15/2009, 15 pages						
	6	http://www.digibarn.com/collections/games/maze-war/macromind-mazewars/index.html, What do you do with your AppleTalk? Play Maze Wars+ of course!, print date 10/15/2009, 2 pages						
	7	http://www.digibarn.com/collections/games/maze-war/oracle-maze/index.html, Maze at INTEROP, print date 10/15/2009, 16 pages						
	8	http://www.digibarn.com/collections/games/maze-war/other-mazes/MazeWar-for-Alto.html, MazeWar for Xerox Alto (email thread from 1982), print date 10/15/2009, 3 pages						
	9	http://www.digibarn.com/collections/games/maze-war/super-maze-wars/index.html, Super Maze Wars The Networkable 3-D Mazebattle Game, print date 10/15/2009, 15 pages						

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Numb	er	AP019CON3

10	http://www.digibarn.com/collections/games/xerox-maze-war/index.html, Celebrating Thirty Years (1974) of the world's first multiplayer 3D game environment!, print date 10/15/2009, 4 pages	
11	http://www.digibarn.com/history/04-VCF7-MazeWar/blog/index.html, We welcome your stories about Maze, how it changed your life (or didn't)!, print date 10/15/2009, 2 pages	
12	http://www.digibarn.com/history/04-VCF7-MazeWar/index.html, The First First Person Shooter, print date 10/15/2009, 3 pages	
13	http://www.digibarn.com/history/04-VCF7-MazeWar/panelists/index.html, Greg Thompson, Chief Video Architect, Cisco's Video Networking Business Unit, print date 10/15/2009, 3 pages	
14	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/colley.html, Steve Colley's account of the beginning of Maze (and other history and thoughts), print date 10/15/2009, 2 pages	
15	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/guyton.html, Jim Guyton's Story of Maze at Xerox (Alto and Star), print date 10/15/2009, 2 pages	
16	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/lebling.html, David Lebling's Story of Maze at MIT (1974+), print date 10/15/2009, 2 pages	
17	http://www.worlds.com/press-releases/PaidWorldsContract-08-12-08.html, WORLDS.COM Inc. and PAID, INC. sign reciprocal licensing agreements, print date 08/25/2009, 3 pages	
18	AIR WARRIOR Version 0.8 Manual, 1987, pp. 1-42, Kesmai Corporation, USA	
19	AIR WARRIOR Version 1.2 Game Manual, 1989, pp. 1-91, Kesmai Corporation, USA	
20	Club Caribe Guidebook, 1989, pp. 1-12, Quantum Computer Services, Inc. and Lucasfilms Ltd., USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Numb	er	AP019CON3

21	comp.groupware FAQ: Products 4: Frequently Asked Questions, Groupware Products, Part four, (comp.groupware notes.misc. Lotus Notes related discussions) 1997, print date 5/13/2009, 9 pages, http://www.faqs.org/faqs/comp-groupware-faq/products4/	
22	DOOM Game Manual, 1993, pp. 1-13, Software Publishers Association, Washington D.C., USA	
23	INTERACTION MAGAZINE, Spring 1992, pp. 1-82, Parts 1-4	
24	The Becker Group Finances The Parallel Universe TM Multi-Player Interactive Video Game System, Business Wire, 1995, Calgary, Alberta, CA, print date 05/13/2009, 3 pages http://findarticles.com/p/articles/mi_m0EIN/is_1995_March_14/ai_16659321/	
25	The Doom rendering engine, print date 09/21/2009, 3 pages http://everything2.com/title/The+Doom+rendering+engine?displaytype=printable	
26	The Doom Wiki, Doom networking component, print date 09/22/2009, 3 pages http://doom.wiki.com/wiki/Doom_networking_component	
27	The Realm Official Players Guide, 1997, pp. 1-160, Sierra Online, Inc., Coarsegold, CA, USA	
28	The Shadow of Yserbius User Guide, 1993, pp. I-LXVI, Sierra Online, Inc., Coarsegold, CA, USA	
29	AIREY et al., Towards Image Realism with Interactive Update Rates in Complex Virtual Building Environments, ACM SIGGRAPH Computer Graphics, 1990, pp. 41-50, 258, Vol. 24, No. 2, New York, NY, USA [doi: http://doi.acm.org/10.1145/91394.91416]	
30	AKIYAMA et al., Consideration on Three-Dimensional Visual Communication Systems, IEEE J. on Selected Areas in Communications, 1991, pp. 555-560, Vol. 9, No. 4, IEEE Computer Society Press, Los Alamitos, CA, USA	
31	ALIAGA, Virtual and Real Object Collisions in a Merged Environment, VRST '94 Proc. of the conference on Virtual Reality software and Technology Singapore, Singapore, 1994, pp. 287-298, World Scientific Publishing Co., Inc., River Edge, NJ, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Numb	er	AP019CON3

32	ALLUISI, Network and Virtual-World Technologies for Training: A Panel Presentation and Discussion, in WOODS et al. (ed.), Proceedings of the Human Factors Society 34th Annual Meeting, 1990, pp. 1405-1406, Vol. 2, The Human Factors Society, Santa Monica, CA, USA	
33	AMARI et al., A Virtual Reality Application for Software Visualization, Proc. IEEE VRAIS '93, 1993, pp. 1-6, IEEE Computer Society Press, Los Alamitos, CA, USA	
34	AMSELEM, A Window on Shared Virtual Environments, Presence, 1995, pp. 130-145, Vol. 4, No. 2, MIT Press, Cambridge, MA, USA	
35	ANDERSON et al., Building Multiuser Interactive Multimedia Environments at MERL, IEEE MultiMedia, 1995, Vol. 2, No. 4, IEEE Computer Society Press, Los Alamitos, CA, USA, [doi: http://doi.ieeecomputersociety.org/10.1109/93.482298]	
36	ANDREWS, Warfighting Training R & D in the Post Cold War Era—With A Special Emphasis on Synthetic Environments, Educational Technology,1994, pp. 36-40, Vol. XXXIII, No. 2, Brooks Air Force Base, Tex.: Armstrong Laboratory, Air Force Materiel Command	
37	AOKI et al., Design and Control of Shared Conferencing Environments for Audio Telecommunication Using Individually Measured HRTFs, Presence, 1994, pp.60-72, Vol. 3, No. 1, MIT Press, Cambridge, MA, USA	
38	APPINO et al., An Architecture for Virtual Worlds, Presence, 1992, pp. 1-17, Vol. 1, No. 1, MIT Press, Cambridge, MA, USA	
39	BAILEY et al., Learning and Transfer of Spatial Knowledge in a Virtual Environment, Proc. of the Human Factors & Ergonomics Society 38th Annual Meeting, 1994, pp. 1158-1162,Vol. 2, Human Factors and Ergonomics Society, Santa Monica, CA, USA	
40	BAJAJ et al., Distributed and Collaborative Synthetic Environments (Technical Report 95-059), Purdue University, Department of Computer Sciences, 1995, pp. 1-13	
41	BANGAY, Parallel implementation of a Virtual Reality System on a Transputer Architecture, Unpublished MS Thesis, 1993, pp. 1-117, Rhodes University, Grahamstown, South-Africa	
42	BANGAY, A Comparison of Virtual Reality Platforms, 1994, pp 1-16 http://www.cs.ru.ac.za/vrsig/techdocs/bangay/SDB04.ps.gz	

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Numb	er	AP019CON3

	43	1994,	ANISAR, Epic Statement on Digital Telephony Wire Tap Bill (EPIC Statement on FBI Wire Tap Bill), Telecom Digest, 994, pp. 1-336, Vol. 14, lss. 351-400, ttp://massis.lcs.mit.edu/archives/back.issues/1994.volume.14/vol14.iss351-400						
	44	BARC	DN, AIR WARRIOR Flight Manual, 1992, pp. 1-145, Charlottesville, VA, U	, AIR WARRIOR Flight Manual, 1992, pp. 1-145, Charlottesville, VA, USA					
4	45			S et al., Locales and Beacons: Efficient and Precise Support For Large Multi-User Virtual Environments, Proc. RAIS '96, 1996, pp. 204-213, IEEE Computer Society Press, Los Alamitos, CA, USA					
4	46		BATSON, ENFI Research, Computers and Composition, 1993, pp. 93-101, Vol. 10, No. 3, University of Illinois, Urbana-Champaign and Michigan Technological University						
4	47		BELL et al., The LEAP Intelligent Tutoring Architecture, Proc. 1993 Conf. on Intelligent Computer-Aided Training and /irtual Environ. Technol., 1993, pg. 218, Vol. II, NASA						
4	48	BENFORD, A Distributed Architecture for Large Collaborative Virtual Environments, Proc. IEEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 9/1-9/7, Digest Number 121, IEEE Computer Society Press, London, UK							
	49	BENFORD et al., From Rooms to Cyberspace: Models of Interaction in Large Virtual Computer Spaces, Interacting With Computers, 1993, pp. 217-237, Vol. 5 No. 2, Elsevier, London, UK							
į	50	BENFORD et al., A Spatial Model of Interaction in Large Virtual Environments, Proc. 3rd European Conf. on Computer-Supported Work Milan, Italy, 1993, pp. 109-124, Kluwer Academic Publishers Norwell, MA, USA							
If you wish	to ac	ld add	litional non-patent literature document citation information please	click the Add b	outton Add				
EXAMINER SIGNATURE									
Examiner Signature Date Considered									
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.									

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Number	er	AP019CON3

	CERTIFICATION STATEMENT						
Plea	ase see 37 CFR 1	.97 and 1.98 to make the appropriate selection	on(s):				
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).						
OR							
	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).						
	See attached cer	rtification statement.					
×	Fee set forth in 3	7 CFR 1.17 (p) has been submitted herewith					
	☐ None						
SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.							
Sigr	nature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30			
Nan	ne/Print	Anatoly S. Weiser	eiser Registration Number 4				

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. 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.

	Application Number		12406968	
	Filing Date		2009-03-19	
INFORMATION DISCLOSURE	First Named Inventor	Leahy	, Dave	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173	
(Not for Submission under or of K 1.55)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Numb	per AP019CON3		

					U.S.I	PATENTS			Remove	
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D	ate	Name of Pate of cited Docu	entee or Applicant ment	Releva	,Columns,Lines whe ant Passages or Rel s Appear	
	1									
If you wisl	h to add	d additional U.S. Pater	nt citatio	n inform	ation pl	ease click the	Add button.	•	Add	
			U.S.P	ATENT.	APPLI	CATION PUBI	LICATIONS		Remove	
Examiner Initial*	Cite N	o Publication Number	Kind Code ¹	Publica Date	tion	of cited Document		s,Columns,Lines where rant Passages or Relevant es Appear		
	1									
If you wisl	h to add	d additional U.S. Publi	shed Ap	plication	citatio	n information p	olease click the Ad	d button	Add	
				FOREIG	N PAT	TENT DOCUM	ENTS		Remove	
Examiner Initial*		Foreign Document Number ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patente Applicant of cited Document	e or	Pages,Columns,Line where Relevant Passages or Releva Figures Appear	T5
	1									
If you wisl	h to add	d additional Foreign Pa	atent Do	cument	citation	information pl	ease click the Add	button	Add	'
			NON	I-PATEN	IT LITE	RATURE DO	CUMENTS		Remove	
Examiner Initials* Cite No Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.						T 5				

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number	er	AP019CON3

1	PAPATHOMAS et al., Synchronization in Virtual Worlds, in THALMANN et al. (eds.) Virtual Worlds and Multimedia, 1993, pp.135-152, Ch. 11, John Wiley & Sons, New York, NY, USA	
2	PAUSCH, Software Development Environments and Architectures for Virtual Reality, Proc. of ACM SIGGRAPH '94: Course Notes 2 Developing Advanced Virtual Reality Applications, 1994, pp. 14.1-14.8, ACM Press, New York, NY, USA	
3	PETERSON, The Island in your Computer, Dragon Magazine, Vol. XII, No. 7, Iss. 128, 1987, pp. 69-70 & 73, print date 3/25/2009, 4 pages, http://archive.legendsofkesmai.com/iok/miscellaneous/articles/island_in_your_computer.htm	
4	PIANTANIDA et al., Studies of the Field-Of-View/Resolution Tradeoff in Virtual-Reality Systems, in Proc. SPIE: ROGOWITZ (ed.) Human Vis. Proc. Digital Display III, 1992, pp. 448-456, Vol. 1666, SPIE Press, Bellingham, Washington, USA [doi: http://10.1117/12.135990]	
5	PIMENTEL, System Architecture Issues Related to Multiple-User VR Systems: Teaching Your System to Share, Proc. 3rd Annual Virtual Reality Conference and Exhibition on VR Becomes A Business, 1993, pp. 125-133, Meckler Publishing, Westport, CT, USA	
6	POLIS et al., Automating the Construction of Large-Scale Virtual Worlds, Computer, 1995, pp. 57-65, Vol. 28, No. 7, IEEE Computer Society, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/2.391042]	
7	PRATT, A Software Architecture for the Construction and Management of Real-Time Virtual Worlds, Naval Postgraduate School Dissertation, 1993, pp. 1-147, Monterey, CA, USA	
8	PRATT et al., Insertion of an Articulated Human into a Networked Virtual Environment, Proc. 5th Ann. Conf. on Al, Simulation and Planning in High Autonomy Systems, 1994, pp.84-90, IEEE Computer Society Press, Los Alamitos, CA, USA	
9	PRATT et al., NPSNET: Four User Interface Paradigms for Entity Control in a Virtual World, J. of Intelligent Systems, 1995, pp. 89-109, Vol. 5, Nos. 2-4, Freund Publishing House Ltd., London, England, UK	
10	PULKKA, Spatial Culling of interpersonal Communication Within Large-Scale Multi-User Virtual Environments, MS Thesis in Computer Science and Engineering at the University of Washington, 1995, print date 5/14/2009, 50 pages, http://www.hitl.washington.edu/publications/pulkka/1.html	
11	PULLEN et al., Networking Technology and DIS, Proc. of the IEEE, 1995, pp. 1156-1167, Vol. 83, No. 8, IEEE, New York, NY, USA [doi: http://10.1109/5.400455]	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Number	er	AP019CON3

12	QUINLAN, Efficient Distance Computation between Non-Convex Objects, IEEE Int. Conference on Robotics and Automation, 1994, pp. 3324-3329, Vol. 2, IEEE Computer Society Press, Los Alamitos, CA, USA	
13	REA, Innovative Network Structure Displays, Virtual Reality World, 1994, pp. 18-22, Vol. 2, No. 1, Meckler Corporation, Westport, CT, USA	
14	REA et al., Advanced Interface Into Network Management Workstations, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 7/1-7/3, IEE, London, UK	
15	REED, Virtual Reality For Real-Time Performance Analysis and Display, Proc. of the Supercomputing '95, 1995, pp. 1-3, ACM Press, New York, NY, USA	
16	REGAN et al., Priority Rendering with a Virtual Reality Address Recalculation Pipeline, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 155-162, ACM Press, New York, NY, USA	
17	REYNDERS et al., POOMA: A Framework for Scientific Simulation on Parallel Architectures, First Int. Workshop on High-Level Programming Models and Supportive Environments, 1996, pp. 41-49, IEEE Computer Society Press, Los Alamitos, CA, USA	
18	REZZONICO et al., Consistent Grasping in Virtual Environments base on the Interactive Grasping Automat, in in GOBEL et al. (eds.), Virtual Environments '95 Selected papers of the Eurographics Workshops in Barcelona, Spain and Monte Carlo, 1993, Monaco, 1995, 1995, pp. 107-118, Springer-Verlag London, UK	
19	RHEINGOLD, Multi-User Dungeons and Alternate Identities, The Virtual Community Homesteading on the Electronic Frontier, 1993, pp. 145-175, Addison-Wesley Publishing Co., New York, NY, USA	
20	RIVERA, Proyecto Xochicalco: A Networked Virtual Environments System Featuring an Ancient Aztec/Mayan Ball Game Played on the Replicated Virtual Site of Xochicalco, Mexico, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 192-193, ACM Press, New York, NY, USA	
21	ROBINETT, Interactivity and Individual Viewpoint in Shared Virtual Worlds: The Big Screen vs. Networked Personal Displays, Computer Graphics, 1994, pp. 127-130, Vol. 8, No. 2, AMC SIGGRAPH, Orlando, FL, USA	
22	SHEKTER et al., The NETREK Newbie Manual, 1995, print date 11/03/2009, 42 pages http://www.netrek.org/about/2005-newbie.html	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Numb	er	AP019CON3

23	SINGH et al., BrickNet: Sharing Object Behaviors on the Net, Proc. IEEE VRAIS '95, 1995, pp. 19-25, IEEE Computer Society Washington, D.C., USA	
24	SINGHAL et al., Using a Position History-Based Protocol for Distributed Object Visualization, Technical Report STAN-CS-TR-94-1505, Computer Science Department, Stanford University, Stanford, California, USA	
25	SLATER, An Algorithm to Support 3D Interaction on Relatively Low Performance Graphics Systems, Comp. & Graphics, 1992, pp. 311-315, Vol. 16, No. 3, Pergamon Press Ltd., Great Britain, UK	
26	SLATER et al., Representations Systems, Perceptual Position, and Presence in Immersive Virtual Environments, Presence, 19932, pp. 221-233, Vol. 2, No. 3, MIT Press, Cambridge, MA, USA	
27	SLATOR et al., From Dungeons to Classrooms: The Evolution of MUDs as Learning Environments, Studies in Computational Intelligence, 2007, pp. 119-159, Vol. 62, Springer-Verlag, Berlin, Germany	
28	SMETS et al., Visual Resolution and Spatial Performance: The trade-off between resolution and interactivity, Proc. IEEE VRAIS '95, 1995, pp. 67-73, IEEE Computer Society Washington, D.C., USA	
29	SNOSWELL, Overview of cyberterm, a cyberspace protocol implementation, InterNet article, 1992 http://www.ibiblio.org/pub/academic/computer-science/virtual-reality/papers/Snoswell.Cyberterm	
30	SOMMERER et al., A-Volve A Real-Time Interactive Environment, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 172-173, ACM Press, New York, NY, USA	
31	STANIC, Surfs Up, SplattBlog, 1995, pp. 1-7, lss. 2, http://www.splatt.com.au/blog/2004/09/14/surfs-up-issue-2from-a-simpler-time/	
32	STRANGER, Networked Virtual Reality Applications, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 1/1-1/4, IEE, London, UK	
33	STYTZ, Distributed Virtual Environments, IEEE Comp. Graphics and Applications, 1995, pp. 19-31, Vol. 16, Iss. 3, IEEE Computer Society Press Los Alamitos, CA, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Numb	er	AP019CON3

34	SUGAWARA et al., A study of shared virtual space service – a study of system architecture, IEICE Journal, pp. 25-29, Vol. 94, No. 486, Japan (English Abstract)	
35	TAYLOR et al., Virtual Reality: A Distributed Perspective, Virtual Reality, 1995, pp. 91-94, Vol. 1, No. 2, Springer London, UK	
36	TAYLOR et al., Identifying and Reducing Critical Lag in Finite Element Simulations, IEEE Comp. Graphics and Applications, 1996, pp. 67-71, Vol. 16, Iss. 4, IEEE Computer Society Press Los Alamitos, CA, USA	
37	TELLER, Visibility Computations in Densely Occluded Polyhedral Environments, Ph.D. thesis, Computer Science Division (EECS), 1992, pp. 1-151, University of California, Berkley, CA, USA	
38	TELLER et al., Visibility Preprocessing For Interactive Walkthroughs, Proc. of ACM SIGGRAPH ' 91 Computer Graphics, 1991, pp. 61–69, Vol. 25, No. 4, ACM Press, New York, NY, USA	
39	THOMPSON, The aMazing History of Maze – It's a Small World After-all, http://www.digibarn.com/collections/presentations/maze-war/The-aMazing-History-of-Maze.ppt, print date 10/15/2009, 35 pages	
40	TORGUET et al., Multi-User Interactions In The Context of Concurrent Virtual World Modelling, in GOBEL et al. (eds.), Virtual Environments and Scientific Visualization '96, Proc. of the Eurographics Workshops in Monte Carlo, Monaco and in Prague, Czech Republic, 1996, pp. 121-130, Springer-Verlag London, UK	
41	TRIAS et al., Decision Networks for Integrating the Behaviors of Virtual Agents and Avatars, Proc. VRAIS '96, 1996, pp. 156-162, IEEE Computer Society Washington, DC, USA	
42	UNITED STATES CONGRESS SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION SUBCOMMITTEE ON SCIENCE, TECHNOLOGY AND SPACE, New Developments in Computer Technology: Virtual Reality: Hearing Before the Subcommittee on Science, Technology, and Space of the Committee on Commerce, Science, and Transportation, 1992, pp. 102-553, Washington, D.C., USA: U.S.G.P.O., Supt. Of Docs., Congressional Sales Office	
43	WALLIS, Playing Catch Up: Habitat's Chip Morningstar and Randy Farmer, Gamasutra News, 2006, print date 3/20/2009, 4 pages, http://www.gamasutra.com/php-bin/news_index.php?story=11232	
44	WENZEL, Localization in Virtual Acoustic Displays, Presence, 1992, pp. 80-107, Vol. 1, No. 1, MIT Press, Cambridge, MA, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Numb	er	AP019CON3

	45	WEST et al., AVIARY – A Generic Virtual Reality Interface for Real Applications, Virtual Reality Systems, 1993, pp. 213-236, Ch. 15								
	46		YAKAI, Habitat: A Look at the Future of Online Games, Compute!, 1986, pp. 32-37, Vol. 8, No. 1, Iss. 77, http://www.atarimagazines.com/compute/issue77/habitat.php							
	47		YOUN et al., Realtime Collision Detection for Virtual Reality Applications, Proc. VRAIS '93, 1993, pp. 415-421, IEEE Computer Society, Washington, DC, USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1993.380750]							
	48		ZYDA, Networking Large-Scale Virtual Environments, Computer Animation, 1996, pp. 1-4, IEEE Computer Society Washington, DC, USA [doi: http://doi.ieeecomputersociety.org/10.1109/CA.1996.540480]							
	49	ZYDA, Networked Virtual Environments, Proc. VRAIS '95, 1995, pp. 230-231, IEEE Computer Society, Washington, DC, USA								
	50	ZYDA et al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4, No. 1								
If you wis	h to a	dd add	ditional non-patent literature document citation information p	lease click the Add b	outton Add					
			EXAMINER SIGNATURE							
Examiner	Examiner Signature Date Considered									
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										
Standard ST	¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.									

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Numb	er	AP019CON3

	CERTIFICATION STATEMENT								
Plea	Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):								
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).								
OR	OR								
	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).								
	See attached certification statement.								
X	Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.								
X									
SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.									
Signature		/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30					
Name/Print		Anatoly S. Weiser	Registration Number	43,229					
Name/Print		Anatoly S. Weiser	Registration Number	43,229					

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. 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.

	Application Number		12406968	
	Filing Date		2009-03-19	
INFORMATION DISCLOSURE	First Named Inventor	Leahy	, Dave	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173	
(Not for Submission under or of K 1.55)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Number		AP019CON3	

U.S.PATENTS Remove										
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D	ate	of cited Document		s,Columns,Lines where ant Passages or Relevant es Appear		
	1									
If you wish to add additional U.S. Patent citation information please click the Add button. Add										
U.S.PATENT APPLICATION PUBLICATIONS Remove										
Examiner Initial*	Cite N	o Publication Number	Kind Code ¹	Publica Date	tion	Name of Patentee or Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
	1									
If you wisl	h to add	d additional U.S. Publis	shed Ap	plication	citation	n information p	lease click the Add	d button	Add	
				FOREIG	N PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*		Foreign Document Number³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	e or V F	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T 5
	1									
If you wish to add additional Foreign Patent Document citation information please click the Add button Add										
NON-PATENT LITERATURE DOCUMENTS Remove										
Examiner Initials* Cite No Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.								T 5		

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number	er	AP019CON3		

1	HOLLOWAY et al., Virtual Environments: A Survery of the Technology (TR-93-033), Dept. Comp. Sci. U. of North Carolina,1993, pp. 1-57, Chapel Hill, NC, USA	
2	KAZMAN, Making WAVES: On the Design of Architectures for Low-end Distributed Virtual Environments, Proc. IEEE VRAIS '93, 1993, pp. 443-449, IEEE Computer Society Press, Los Alamitos, CA, USA	
3	KAZMAN, HIDRA: An Architecture for Highly Dynamic Physically Based Multi-Agent Simulations, 1995, Int. J. Comp. Simulation, Vol. 5, Iss. 2, pp. 149–164, Ablex Publishing Corp., Norwood, NJ, USA	
4	KAZMAN, Load Balancing, Latency Management and Separation of Concerns in a Distributed Virtual World, in ZOMAYA (ed.), Parallel Computations – Paradigms and Applications, 1995, pp. 480-497, Ch. 18, International Thompson Computer Press, London, UK	
5	KELLY, The First Online Sports Game Netrek is Mind Hockey on the Net, WIRED, 1993, pp. 54-55, Vol. 1, No.06, Wired USA Ltd., San Francisco, CA, USA	
6	KESSLER et al., A Network Communication Protocol for Distributed Virtual Environment Systems, Proc. VRAIS '96, 1996, pp. 214-222, IEEE Computer Society Press, Washington, D.C., USA	
7	KOLLOCK, Invited Speaker: Design Principles for Online Communities: Lessons from Early Settlements, Proc. IEEE VRAIS '97, 1997, pg. 152, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1997.10002]	
8	KUMAR et al., Interactive Display of Large-Scale NURBS Models, SI3D '95 Proc. of the 1995 symposium on Interactive 3D graphics, 1995, pp. 51-58 & 206, ACM Press, New York, NY, USA, USA [doi: http://doi.acm.org/10.1145/199404.199413]	
9	KUTULAKOS et al., Affine Object Representations for Calibration-Free Augmented Reality, Proc. IEEE VRAIS '96, 1996, pp. 25-36, IEEE Computer Society Press, Washington, D.C., USA [doi: http://doi.ieeecompuersociety.org/10.1109/VRAIS.1996.490507]	
10	LAMPTON et al., Distance Estimation in Virtual Environments, Proc. of the Human Factors and Ergonomics Soc. 39th Ann. Meeting, 1995, pp. 1268-1272, Human Factors and Ergonomics Society, Santa Monica, CA, USA	
11	LASTRA, Technology for Virtual Reality, Proc. of ACM SIGGRAPH '94: Course Notes 17 Programming Virtual Worlds, 1994, pp. 1-25, Ch. 3, ACM Press, New York, NY, USA	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

12	LATHAM, If VR is So Great, Why Are VR Entertainment Systems So Poor?, ACM SIGGRAPH Computer Graphics, 1994, Vol. 28 No. 2, pp. 113-114, ACM Press, New York, NY, USA	
13	LEA et al., Cool: System Support for Distributed Programming, Communications of the ACM, pp. 37-46, Vol. 36, No. 9, ACM Press, New York, NY, USA	
14	LEVINE et al., Effect of Visual Display Parameters on Driving Performance in a Virtual Environments Driving Simulator, Proceedings of the Human Factors Society 40th Annual Meeting, 1996, pp. 1136-1140, The Human Factors Society, Santa Monica, CA, USA	
15	LEVISON et al., Use of Virtual Environment Training Technology for Individual Combat Simulation (TR 971), US Army Res. Institute for the Behav. Social Sci.,1993 pp. 1-85, ARI, Alexandria, VA, USA	
16	LEVOY et al., Gaze-Directed Volume Rendering (TR-89-048), Dept. Comp. Sci. U. of North Carolina,1989, pp. 1-7, Chapel Hill, NC, USA	
17	LUEBKE et al., Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets, SI3D '95 Proc. of the 1995 symposium on Interactive 3D graphics, 1995, pp. 105-106, 212, ACM Press, New York, NY, USA, USA [doi: http://doi.acm.org/10.1145/199404.199422]	
18	MACEDONIA, A Network Software Architecture For Large Scale Virtual Environments, Naval Postgraduate School Dissertation, 1995, pp. 1-233, Monterey, CA, USA	
19	MACEDONIA et al., Exploiting Reality with Multicast Groups: A Network Architecture for Large-scale Virtual Environments, Proc. IEEE VRAIS '95, 1995, pp. 2-10, IEEE Computer Society Washington, D.C., USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1995.512473]	
20	MACEDONIA et al., NPSNET: A Network Software Architecture For Large Scale Virtual Environments, Presence, 1994, pp. 265-287, Vol. 3, No. 4, MIT Press, Cambridge, MA, USA	
21	MACEDONIA et al., NPSNET: A Multi-Player 3D Virtual Environment Over the Internet, Proc. of ACM SI3D '95, 1995, pp. 93-ff, ACM Press, New York, NY, USA	
22	MANDEVILLE et al., GreenSpace: Creating a Distributed Virtual Environment for Global Applications, Proc. IEEE Networked Virtual Reality Workshop, 1995, pp. 1-15 [doi: http://www.hitl.washington.edu/publications/p-95-17/]	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

23	MARKOFF, Programmed for Life and Death, NY Times, 1990, New York, NY, USA print date 3/9/2010, 3 pages, http://www.nytimes.com/1990/08/26/weekinreview/ideas-trends-programmed-for-life-and-death.html	
24	MAULDIN, ChatterBots, TinyMuds, and the Turing Test: Entering the Loebner Prize Competition, Proc. of the Twelfth Nat. Conf. on Artificial Intelligence, 1994, pp. 16-21, Vol. 1, American Association for Artificial Intelligence Menlo Park, CA, USA	
25	MCCAULEY et al., Spatial Orientation and Dynamics in Virtual Reality Systems: Lessons from Flight Simulation, Proceedings of the Human Factors Society 345h Annual Meeting, 1991, pp. 1348-1352, Vol. 2, The Human Factors Society, Santa Monica, CA, USA	
26	MCKENNA et al., Three Dimensional Visual Display Systems for Virtual Environments, Presence, 1992, pp. 421-458, Vol. 1, No. 4, MIT Press, Cambridge, MA, USA	
27	MEYER e al., A Survey of Position Trackers, Presence, 1992, pp. 173-200, Vol. 1, No. 2, MIT Press, Cambridge, MA, USA	
28	MICHALSKI, Multi-User Virtual Environments, Part I. Release 1.0, 1994, pp. 1-22, EDventure Holdings, New York, NY, USA	
29	MICHALSKI, Multi-User Virtual Environments, Part II. Release 1.0, 1994, pp. 1-19, EDventure Holdings, New York, NY, USA	
30	MINE, Interaction in a Virtual Environment, Proc. of ACM SIGGRAPH '94: Course Notes 17 Programming Virtual Worlds, 1994, pp. 1-20, Ch. 3, ACM Press, New York, NY, USA	
31	MINE, Virtual Environment Interaction Techniques (TR95-018), Dept. Comp. Sci. U. of North Carolina,1989, pp. 1-18, Chapel Hill, NC, USA	
32	MITCHELL, Virtual Reality and the Internet, Virtual Reality Special Report, 1995, pp. 35-38, Vol. 2, No. 1, Miller Freeman Inc., San Francisco, CA, USA	
33	MITSUTAKE et al., Open Sesame from Top of Your Head – An Event Related Potential Based Interface for the Control of the Virtual Reality System, Proc. of 2nd IEEE Int. Workshop on Robot and Human Communication, 1993, pp. 292-295, IEEE, Japan [doi: http://10.1109/ROMAN.1993.367705]	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

34	MOORE, How to Create a Low-cost Virtual Reality Network, Educational Media Int., 1993, pp. 37-39, Vol. 30, No. 1, Kogan Page Ltd., Letchworth, UK	
35	MORABITO, Enter the On-Line World Of Lucasfilm, RUN, 1986, pp. 24-28, Vol. 3 No. 8	
36	MORIUCHI et al., Communication Control Method in a Multiple User Communication Environment with a Virtual Space, 1995, IEICE Journal, pp. 21-25, Vol. 94, No. 458, Japan	
37	MORNINGSTAR, The Ghu Ghuide (A manual for God's Handy Utility), 1987, pp. 1-45, Lucasfilm Ltd. Games Division, USA	
38	MORNINGSTAR et al., The Lessons of Lucasfilm's Habitat, in BENEDIKT (ed.), Cyberspace: First Steps, 1991, pp: 273-301, Ch. 10, MIT Press, Cambridge, MA, USA	
39	MORNINGSTAR et al., A Comprehensive Guide to Understanding HabitatTM, In The official Avatar Handbook, 1997, pp. 1-43, Vienna, VA, USA http://www.dsgames.net/qlink/habitat/Habitat%20Manual.pdf	
40	MORRISON, The VR-Link ™ Networked Virtual Environment Software Infrastructure, Presence, 1995, pp. 194-208, Vol. 4, No. 2, MIT Press, Cambridge, MA, USA	
41	MOYES, Searching for Ron Britvich articles Part 1 and 2 in The Moyes Report, An independent source for real news in the world of technology, http://www.roderickmoyes.50megs.com/brit1.html, print date 3/26/2009, 12 pages	
42	MULLIGAN, History of Online Games, Imaginary Realities E-magazine, 2000, pp. 1-4, print date 05/13/2009, 4 pages, http://tharsis-gate.org/articles/imaginary/HISTOR~1.HTM	
43	NAKAMURA et al., Distributed Virtual Reality System for Cooperative Work, NEC Res. & Develop. 1994, pp. 403-409, Vol. 35, No. 4, Japan Publications Trading Co., Ltd., Tokyo, JP	
44	NAYLOR, Interactive Playing with Large Synthetic Environments, ACM SI3D Graphics '90, 1990, pp. 107-108, 212, ACM Press, New York, NY, USA	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

	45	NAYLOR et al., Merging BPS Trees Yields Polyhedral Set Operations, ACM SIGGRAPH '90 Computer Graphics, 1990, Vol. 24 No. 4, pp. 115-124, ACM Press, New York, NY, USA									
	46	O'CONNELL et al., System Support for Scalable Distributed Virtual Worlds, ACM VRST '96, 1996, pp. 141-142, ACM Press, New York, NY, USA									
	47	OLANO et al., Combatting Rendering Latency, SI3D '95 Computer Graphics, 1995, pp. 19-24, 204, ACM Press, New York, NY, USA									
	48	PADGETT, Standards (Report: Current Activities in VR Standards at IEEE), Int. J. Virtual Reality, 1995, pp. 28-29, Vol. 1, No. 1, IPI Press, Colorado Springs, CO, USA									
	49	PANDZIC et al., Motor functions in the VLNET Body-Centered Networked Virtual Environment, in GOBEL et al. (eds.), Proc. of the Eurographics Workshops in Monte Carlo, Monaco and in Prague, Czech Republic, 1996, pp. 94-103, Springer-Verlag London, UK									
	50	PAPKA et al., UbiWorld: An Environment Integrating Virtual Reality, Supercomputing and Design, Proc. of the Fifth IEEE Int. Symp. on High Performance Distributed Computing, 1996, pg.306-307, IEEE Computer Society Press, Washington, D.C., USA									
If you wis	h to a	dd add	ditional non-patent literature document citation information please click the Add b	utton Add							
			EXAMINER SIGNATURE								
Examiner	Signa	ature	Date Considered								
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.											
Standard S ⁻¹ Kind of do	¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here English language translation is attached.										

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

	CERTIFICATION STATEMENT										
Plea	lease see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):										
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).										
OR											
	foreign patent of after making rea any individual de	information contained in the information difice in a counterpart foreign application, an sonable inquiry, no item of information contaesignated in 37 CFR 1.56(c) more than thr 87 CFR 1.97(e)(2).	d, to the knowledge of the lined in the information dis	e person signing the certification closure statement was known to							
	See attached cer	rtification statement.									
×	Fee set forth in 3	7 CFR 1.17 (p) has been submitted herewith	ı .								
X	None										
	ignature of the ap n of the signature.	SIGNAT plicant or representative is required in accord		B. Please see CFR 1.4(d) for the							
Sigr	nature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30							
Nan	ne/Print	Anatoly S. Weiser	Registration Number	43,229							

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. 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.

	Application Number		12406968	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Filing Date		2009-03-19	
	First Named Inventor Leahy		hy, Dave	
	Art Unit		2173	
(Not for Submission under or of K 1.55)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Number		AP019CON3	

	U.S.PATENTS Remove									
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D	ate	of cited Document		Releva	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1									
If you wish to add additional U.S. Patent citation information please click the Add button. Add										
			U.S.P.	ATENT.	APPLIC	CATION PUBL	LICATIONS		Remove	
Examiner Initial*	I LITE NO I		Kind Code ¹	Publication Date		Name of Patentee or Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevar Figures Appear		
	1									
If you wisl	h to add	d additional U.S. Publis	shed Ap	plication	citation	n information p	lease click the Add	d button	Add	
				FOREIG	N PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*				Kind Code ⁴	Publication Date	Applicant of cited		Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T 5	
	1									
If you wisl	h to add	d additional Foreign Pa	tent Do	cument	citation	information pl	ease click the Add	button	Add	
			NON	I-PATEN	IT LITE	RATURE DO	CUMENTS		Remove	
Examiner Initials*	No	Include name of the au (book, magazine, jourr publisher, city and/or c	nal, seria	al, sympo	osium, (catalog, etc), c				T 5

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

1	BENFORD et al., Managing Mutual Awareness in Collaborative Virtual Environments, Proc. VRST '94 Singapore, 1994, pp. 223-236, ACM Press, New York, NY, USA	
2	BENFORD et al., Collaborative Virtual Environments on the Internet, Connexions: The Interoperability Report, 1995, pp. 18-25, Vol. 9, No. 10, Interop Company, Foster City, CA, USA	
3	BERGER et al., NVR: A System for Networked Virtual Reality, Proc. of the 1994 IEEE Conference on Multimedia Computing Systems, 1994, pp. 37-44, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://10.1109/MMCS.1994.292431]	
4	BERGLUND et al., Amaze: A Multiplayer Computer Game, IEEE Software, 1985, pp. 30-39, Vol. 3, No. 2, IEEE Computer Society Press, Los Alamitos, CA, USA	
5	BIBLE et al., Using Spread-Spectrum Ranging Techniques for Position Tracking in a Virtual Environment, Proceedings of the Network Realities '95, 1995, pp. 1-15, Naval Postgraduate School	
6	BLADE, The Present and the Future for the IJVR, Int. J. Virtual Reality, 1995, pg. 1, Vol. 1, No. 1, IPI Press, Colorado Springs, CO, USA	
7	BLAU et al., Networked Virtual Environments, Proc. ACM SIGGRAPH Special Issue on Interactive 3D Graphics, 1992, pp. 157-160, ACM Press, New York, NY, USA	
8	BOMAN, Commercial Applications of Virtual Environments, Proceedings of the WESCON/94: Idea/Microelectronics, pp. 82-94, IEEE Computer Society Press, Los Alamitos, CA, USA	
9	BORNING et al., Two Approaches to Casual Interaction Over Computer and Video Networks, Proc. of SIGCHI '91 Conference On Human Factors In Computing Systems, 1991, pp. 13-19, ACM, New York, NY, USA	
10	BRALICK JR. et al., Using a Multi-User Dialogue System to Support Software Engineering Distance Education, Proc. of the 7th SEI CSEE Conference on Software Engineering Education, 1994, pp. 565 – 582, Springer-Verlag, London, UK	
11	BRICKEN et al., VEOS: The Virtual Environment Operating Shell, in BARFIELD et al. (ed.), Virtual Environments and Advanced Interface Design, 1995, pp. 102-142, Ch. 4, Oxford University Press, New York, NY, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

12	BROLL, Interacting in Distributed Collaborative Virtual Environments, Proc. IEEE VRAIS '95, 1995, pp. 148-155, IEEE Computer Society Press, Washington, D.C., USA	
13	BROLL et al., Bringing Worlds Together: Adding Multi-User Support to VRML, VRML '95, 1995, pp. 87-94, ACM, New York, NY, USA	
14	BRUTZMAN et al., Internetwork Infrastructure Requirements for Virtual Environments, Proc. VRML '95: Symposium on the Virtual Reality Modeling Language, 1995, pp. 95-104, ACM, New York, NY, USA	
15	BRYSON, Approaches to the Successful Design and Implementation of VR Applications, Proc. of the ACM SIGGRAPH, 1994, pp. 9:1-9:11, ACM, New York, NY, USA	
16	CALIGARI CORP., Get Your 3D Graphics Stuff, Virtual Reality Special Report, 1995, pp. 40-41, Vol. 2, No. 1, Miller Freeman Inc., San Francisco, CA, USA	
17	CALVIN et al., The Simnet Virtual World Architecture, Proc. IEEE VRAIS '93: Virtual Reality Ann. Int. Symp. Seattle, WA, 1993, pp. 450–455, IEEE Computer Society Press, Los Alamitos, CA, USA, [doi: 10.1109/VRAIS.1993.380745]	
18	CARLSSON et al., DIVE - A Multi-User Virtual Reality System, Proc. IEEE VRAIS '93, 1993, pp 394-400, IEEE Computer Society Press, Los Alamitos, CA, USA	
19	CHAPIN et al., Virtual environment display for 3D audio room simulation, Proc. Stereoscopic Displays and Applications III, 1992, pp. 256-267, Vol. 1669, SPIE Press, Bellingham, Washington, USA [DOI: 10.1117/12.60436]	
20	CHILD, Distributed Virtual Reality, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 5/1-5/4, IEE, London, UK	
21	CLARKE-WILLSON, The Design of Virtual Environments – Value Added Entertainment, ACM SIGGRAPH Computer Graphics, 1994, pp. 102-104, Vol. 28, No. 2, ACM Press, New York, NY, USA	
22	CODELLA et al., Interactive Simulation in a Multi-Person Virtual World, Proc. of SIGCHI '92 Conference On Human Factors In Computing Systems, 1992, pp. 329-334, ACM, New York, NY, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

23	CODELLA et al., A Toolkit for Developing Multi-User, Distributed Virtual Environments, Proc. IEEE VRAIS '93, 1993, pp. 401-407, IEEE Service Center, Piscataway, NJ, USA	
24	COHEN et al., I-COLLIDE: An Interactive and Exact Collision Detection System for Large-Scale Environments, SI3D '95: Proc. 1995 Symp. Interactive 3D graphics, 1995, pp. 189-196, ACM Press, New York, NY, USA	
25	CONN, Virtual Environments and Interactivity: Windows to the Future, SIGGRAPH '89 Panel Proc., 1989, pp. 7-18, ACM Press, New York, NY, USA	
26	COPILEVITZ, Software Firm Creates a Monster Hit Via the 'Information Superhighway, The Dallas Morning News, 1994, print date 09/02/2009, 4 pages, http://www.johnromero.com/lee_killough/articles/morningnews.shtml	
27	CRUTCHER et al., Managing Networks Through a Virtual World, IEEE Parallel & Distributed Technology, 1995, pp. 4-13, Vol. 3, No. 2, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/88.393226]	
28	DARKEN et al., The Bridge between developers and virtual environments: A robust virtual environment system architecture, Proc. Stereoscopic Displays and Virtual Reality Systems, 1995, pp. 234-240, Vol. 2409, SPIE Press, Bellingham, Washington, USA [doi: http://10.1117/12.205866]	
29	DELANO et al., Network Software Architectures for Real-Time Massively-Multiplayer Online Games, MS Thesis, 2005, pp. 1-99, McGill University, Montreal Quebec, CA	
30	DICKENS, Distributed Representation Issues for Distributed Virtual Environments, Proc. of the Twenty-Fifth Annual Summer Computer Simulation Conference, 1993, pp. 894-899, The Society for Computer Simulation, San Diego, CA, USA	
31	ELLIS et al., Visual Enhancements for Perspective Displays: Perspective Parameters, Proceedings of the International Conference on Systems Man and Cybernetics IEEE Catalog #85CH22533, 1985, pp. 815-818, IEEE Systems, Man, and Cybernetics Society, New York, NY, USA	
32	FAHLEN et al., A Space Based Model for User Interaction in Shared Synthetic Environments, INTERCHI '93, 1993, pp. 43-48, ACM Press, New York, NY USA	
33	FAIGLE et al., Integrating Virtual Environments with High Performance Computing, Proc. IEEE VRAIS '93, 1993, pp. 62-68, IEEE Service Center, Piscataway, NJ	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

34	FELL, The Unofficial DOOM Specs Release 1.666, 1994, print date 09/22/2009, 64 pages http://www.aiforge.net/test/wadview/dmspec16.txt	
35	FOLEY et al. (ed.), Viewing in 3D, Computer Graphics Principles and Practice Second Edition, 1990, pp. 229-283, Ch. 6, Addison-Wesley Systems Programming Series Consulting editors: IBM Editorial, USA	
36	FOLEY et al. (ed.), Visible-Surface determination, Computer Graphics Principles and Practice Second Edition, 1990, pp. 649-720, Ch. 15, Addison-Wesley Systems Programming Series Consulting editors: IBM Editorial, USA	
37	FRECON et al., DIVE-A scaleable Network Architecture for Distributed Virtual Environments, Distrib. Syst. Engng., 1998, pp. 91-100, Vol. 5, No. 3, The British Computer Society, The Institution of Electrical Engineers and IOP Publishing Ltd, UK	
38	FUKUDA et al., Hypermedia Personal Computer Communication System: Fujitsu Habitat, FUJITSU Sci. Tech. J., 1990, pp.197-206, Vol. 26, No. 3, Japan	
39	FUNKHOUSER, Network Services for Multi-User Virtual Environments, IEEE Network Realities, 1995, pp. 1-8, Boston, MA, USA	
40	FUNKHOUSER, RING: A Client-Server System for Multi-User Virtual Environments, Proc. ACM SIGGRAPH Special Issue on 1995 Symposium on Interactive 3D graphics, Monterey, CA, USA, 1995, pp. 85-92, ACM Press, New York, NY, USA	
41	FUNKHOUSER et al., Management of Large Amounts of Data in Interactive Building Walkthroughs, SI3D '92 Proc. 1992 symposium on Interactive 3D graphics, pp. 11–20, ACM Press, New York, NY, USA [doi: 10.1145/147156.147158]	
42	GOBBETTI et al., VB2: An Architecture for Interaction in Synthetic Worlds, Proc. of the UIST '93 The Sixth Annual Symposium on User Interface Software and Technology, 1993, pp. 167-178, ACM Press, New York, NY USA	
43	GOMES, Now Playing Everywhere Netrek, an addictive fantasy game played on the Internet network, provides a preview of the not-so-distant future of communications and home entertainment, San Jose Mercury News Business Monday, 1992, May 24, pp. 1D-2D	
44	GOSSWEILER et al., An Introductory Tutorial for Developing Multi-User Virtual Environments, Presence, 1994, pp. 255-264, Vol. 3, No. 4, MIT Press, Cambridge, MA, USA	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

	45	GREENE et al., Hierarchical Z-Buffer Visibility, ACM SIGGRAPH '93 Proceedings of the 20th annual conference on Computer graphics and interactive techniques, 1993, pp. 231-238, New York, NY, USA [doi: http://doi.acm.org/10.1145/166117.166147]								
	46	GREENHALGH et al., MASSIVE: A Collaborative Virtual Environment for Teleconferencing, ACM Transactions on Computer-Human Interaction, pp. 239-261, Vol. 2, No. 3, ACM Press, New York, NY USA								
	47	GREENHALGH et al., MASSIVE: a Distributed Virtual Reality System Incorporating Spatial Trading, Proc. of the 15th ICDCS '95, 1995, pp. 27-34, IEEE Computer Society Press, Washington, D.C., USA								
	48	GRINSTEIN et al., Virtual Environment Architecture for Rapid Application Development, Proc. of the 1993 Conf. on Intelligent Computer-Aided Training and Virtual Environment Technology, 1993, pp. 75-82, NASA								
	49	HAHN et al., An Integrated Virtual Environment System, Presence, pp. 353-360, Vol. 2 No. 4, MIT Press, Cambridge, MA, USA								
	50	HECKBERT et al., Multiresolution Modeling for Fast Rendering, Proc. of Graphics Interface '94, 1994, pp. 43-50, Canadian Information Processing Society, Mississauga, Ontario, CA								
If you wis	h to a	dd add	ditional non-patent literature document citation information please click the Add button Add							
			EXAMINER SIGNATURE							
Examiner	Examiner Signature Date Considered									
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										
Standard S ⁻¹ 4 Kind of do	T.3). ³ l cument	or Japa by the	FO Patent Documents at www.uspto.gov or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (Wlanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark on is attached.	ument.						

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

	CERTIFICATION STATEMENT							
Plea	Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):							
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).							
OR								
	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).							
	See attached cer	rtification statement.						
X	Fee set forth in 3	37 CFR 1.17 (p) has been submitted herewith						
X	X None							
	SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.							
Sigr	nature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30				
Nan	ame/Print Anatoly S. Weiser Registration Number 43,229							
Nan	ne/Print	Anatoly S. Weiser	Registration Number	43,229				

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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.

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. 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.

	Application Number		12406968	
	Filing Date		2009-03-19	
INFORMATION DISCLOSURE	First Named Inventor	Leahy	, Dave	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173	
(Not for Submission under or of K 1.55)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Number		AP019CON3	

U.S.PATENTS Remove												
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D)ate	Name of Pate of cited Docu	entee or Applicant ment	Releva	,Columns,Lines wher ant Passages or Rele s Appear			
	1											
If you wisl	h to add	d additional U.S. Pater	nt citatio	n inform	ation pl	ease click the	Add button.		Add			
			U.S.P	ATENT	APPLI	CATION PUBI	LICATIONS		Remove			
Examiner Initial*	Cite N	o Publication Number	Kind Code ¹	Publica Date	ition	of cited Document		Releva	ges,Columns,Lines wher evant Passages or Rele ures Appear			
	1	20020002585	A1	2002-01	2002-01-03 MATSUD		MATSUDA		MATSUDA			
If you wisl	h to add	d additional U.S. Publi	shed Ap	plication	citatio	n information p	olease click the Ad	d button	ı. Add			
				FOREIG	SN PAT	ENT DOCUM	ENTS		Remove			
Examiner Initial*		Foreign Document Number ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patente Applicant of cited Document	e or F	Pages,Columns,Lines where Relevant Passages or Relevan Figures Appear	T5		
	1											
If you wisl	h to add	d additional Foreign Pa	atent Do	cument	citation	information pl	ease click the Add	button	Add	1		
			NON	I-PATE	NT LITE	RATURE DO	CUMENTS		Remove			
Examiner Initials*	No	Include name of the a (book, magazine, journ publisher, city and/or o	nal, seria	al, symp	osium,	catalog, etc), o				T 5		

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name	Nguye	en, Cao H.
Attorney Docket Number		AP019CON3

	1	ZYDA No. 1	· · · · · · · · · · · · · · · · · · ·	al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4,					
	2 CHEN et al., The Virtual Sailor: An Implementation of Interactive Human Body Modeling, Proc. IEEE VRAIS '93, 1993, pp. 431-435, IEEE Service Center								
	3	Exce 686	cerpt from Harry Newton, Newton's Telecom Dictionary, 686 (18th ed. 2002) (defining the phrase "source code"). p.						
If you wis	h to a	dd add	ditional non-patent literature document citation information p	lease click the Add I	outton Add	•			
			EXAMINER SIGNATURE						
Examiner	Signa	ature		Date Considered					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									
Standard S ⁻ ⁴ Kind of do	¹ See Kind Codes of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.								

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

		CERTIFICATION	STATEMENT			
Plea	ase see 37 CFR 1	.97 and 1.98 to make the appropriate selection	on(s):			
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).					
OR						
	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).					
	See attached cer	rtification statement.				
×	Fee set forth in 3	37 CFR 1.17 (p) has been submitted herewith				
X	None					
	SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.					
Sign	nature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30		
Nan	ne/Print	Anatoly S. Weiser	Registration Number	43,229		

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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:

- 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.

Electronic Patent Application Fee Transmittal							
Application Number:	124	06968					
Filing Date:	19-1	Vlar-2009					
Title of Invention:	SYS SPA	TEM AND METHOI CE	O FOR ENABLING	USERS TO INTER/	ACT IN A VIRTUAL		
First Named Inventor/Applicant Name:	Dave Leahy						
Filer:	Ana	toly Weiser./Irene	Betke				
Attorney Docket Number:	AP019CON3						
Filed as Large 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:							

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
	Tot	180		

Electronic Acknowledgement Receipt				
EFS ID:	7318773			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser./Irene Betke			
Filer Authorized By:	Anatoly Weiser.			
Attorney Docket Number:	AP019CON3			
Receipt Date:	30-MAR-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	17:01:38			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
RAM confirmation Number	3743
Deposit Account	503196
Authorized User	

File Listing:

Document	Document Description	File Name	File Size(Bytes)/	Multi	Pages	l
Number	Document Description	riie Name	Message Digest	Part /.zip	(if appl.)	l

	Transmittal Letter AP019CON3IDSNo2Transmit	264200		2		
1	Transmittal Letter	pdf	eb2a968d7d7960589858aec9778c1a79d04 c97d0	no	2	
Warnings:						
Information						
2	Miscellaneous Incoming Letter	AP019CON3IDSNo2Statement.	106663	no	2	
2	Miscellaneous incoming Letter	pdf	057501000b4ff7fa3564fe77b3738b25758f 1fcf	110	2	
Warnings:						
Information						
3	Information Disclosure Statement (IDS)	AP019CON3IDSNo2SB08aEFSF	617975	no	14	
,	Filed (SB/08)	ormNo1.pdf	05f8fe1af03f39164034ea84ecb47529a1197 e16	110	1	
Warnings:						
Information						
4	Information Disclosure Statement (IDS)	AP019CON3IDSNo2SB08aEFSF	616324	no	8	
7	Filed (SB/08)	ormNo2.pdf	9d34a1547966a937ad70ce01017ed30a34d 38a5b	110		
Warnings:						
Information						
autoloading of you are citing l within the Ima	umber Citation or a U.S. Publication Numbe data into USPTO systems. You may remove J.S. References. If you chose not to include l ge File Wrapper (IFW) system. However, no Non Patent Literature will be manually revi	e the form to add the required dat U.S. References, the image of the f data will be extracted from this fo	a in order to correct the I form will be processed ar rm. Any additional data s	nformational Id be made av	Message if vailable	
5	Information Disclosure Statement (IDS)	AP019CON3IDSNo2SB08aEFSF	616470	no	8	
_	Filed (SB/08)	ormNo3.pdf	6b2df5a706cabefd64f6a94b449fdd813a87 4f6f			
Warnings:						
Information						
autoloading of you are citing l within the Ima	umber Citation or a U.S. Publication Numbe data into USPTO systems. You may remove J.S. References. If you chose not to include l ge File Wrapper (IFW) system. However, no Non Patent Literature will be manually revi	e the form to add the required dat U.S. References, the image of the f data will be extracted from this fo	a in order to correct the I form will be processed ar rm. Any additional data s	nformational Id be made av	Message if vailable	
6	Information Disclosure Statement (IDS) Filed (SB/08)	AP019CON3IDSNo2SB08aEFSF ormNo4.pdf	616827	no	8	
	Tiled (30/00)	ommo-4.pai	735b3ead9bf6b218dec683e3cf7734f3b4dc 7dad			
Warnings:						
Information						
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.						
7	Information Disclosure Statement (IDS)	AP019CON3IDSNo2SB08aEFSF	612180	no	4	
·	Filed (SB/08)	ormNo5.pdf	d09a5bbf1e4a5924dd878dcc5092fb4a949 095fb	,	,	

Warnings:					
Information:					
8		p1-8.pdf	21529849	yes	499
-		F . 2.F2	3d485c054eb6570b7cd7684c54373136fca 10286	,	
	Multip	part Description/PDF files in	n .zip description		
	Document De	scription	Start	Е	nd
	Foreign Refe	erence	1	:	34
	Foreign Refe	erence	35	1	52
	Foreign Refe	erence	153	2	252
	Foreign Refe	erence	253	3	05
	Foreign Refe	erence	306	346	
	Foreign Refe	Foreign Reference		4	15
	Foreign Refe	erence	416	483	
	Foreign Refe	erence	484	499	
Warnings:					
Information:					
9		p9-17.pdf	11519863	yes	298
-		p5 17 ps.	a07952cb450ed2363ef962f044fa0c7cc85f2 319	,	
	Multip	part Description/PDF files in	n .zip description		
	Document De	scription	Start	E	nd
	Foreign Refe	erence	1	33	
	Foreign Refe	Foreign Reference		61	
	Foreign Reference		62	94	
	Foreign Refe	erence	95	158	
	Foreign Refe	erence	159	169	
	Foreign Refe	erence	170	1	76

	Foreign Reference		177	24	4
	Foreign Reference		245	27	9
	Foreign Refe	erence	280	29	8
Warnings:					
Information:					
10		p18-30.pdf	15889030	yes	241
			e98175805dd2274d58b0066fea1dbe91515 f811b		
	Multip	part Description/PDF files	in zip description	'	
	Document De	scription	Start	En	d
	Foreign Refe	erence	1	13	3
	Foreign Refe	erence	14	56	
	Foreign Refe	Foreign Reference		68	
	Foreign Refe	Foreign Reference		76	
	Foreign Refe	Foreign Reference		86	
	Foreign Refe	erence	87	104	
	Foreign Refe	erence	105	122	
	Foreign Refe	erence	123	136	
	Foreign Refe	erence	137	15	2
	Foreign Refe	erence	153	19	0
	Foreign Reference		191	20	1
	Foreign Reference		202	215	
	Foreign Reference		216	241	
Warnings:			I	I	
Information:					

11	271 2F - 46	24.25 16	14752127		100
11		p31-35.pdf	9f12760d2294d4d7ba2d9bff9df96f12aa88 508f	yes	189
	Multip	part Description/PDF files in	zip description		
	Document De	scription	Start	End	
	Foreign Refe	erence	1		43
	Foreign Refe	erence	44		58
	Foreign Refe	erence	69	:	35
	Foreign Refe	erence	86	1	45
	Foreign Refe	erence	146	1	89
Warnings:					
Information:		 	1		
12		a1-8.pdf	9247823	yes	96
		·	468b3c34d817c150478f1817639feea7b4df 2961	,	
	Multip	oart Description/PDF files in	zip description		
	Document De	scription	Start	E	nd
	NPL Docum	nents	1	1	
	NPL Docum	nents	2	4	
	NPL Docum	nents	5	7	
	NPL Docum	nents	8	60	
	NPL Docum	nents	61		75
	NPL Docum	nents	76		77
	NPL Docum	nents	78	,	93
	NPL Documents		94	!	96
Warnings:					
Information:					
13		a9-18.pdf	14198923 de7b0b8f6a6b8792c275f6a8b4825dcd569 c451a	yes	80
			5.510		

	Multipart Description/PDF files in .zip description					
	Document Des	scription	Start	E	nd	
	NPL Docum	ents	1		15	
	NPL Docum	ents	16		19	
	NPL Docum	ents	20	-	21	
	NPL Docum	ents	22	:	24	
	NPL Docum	25	:	27		
	NPL Docum	28	:	29		
	NPL Documents		30	31		
	NPL Documents		32		33	
	NPL Documents		34	36		
	NPL Docum	ents	37	80		
Warnings:						
Information:						
14	Fee Worksheet (PTO-875)	fee-info.pdf	30610	no	2	
			67e32e4a711a682670049a660faa8e94d56 b4079			
Warnings:						
Information:						
		Total Files Size (in bytes)	906	518864		

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.

Doc Code: TRAN.LET

Document Description: Transmittal Letter

PTO/SB/21 (07-09)
Approved for use through 07/31/2012 OMB 0651-0031

	Approved for us	e through	07/31/2012.	OMB 0651-003
J.S. Patent and	I Trademark Office	; U.S. DEF	PARTMENT	OF COMMERC

12406968

TRA	NSMITTAI	Filing Date	2009	9-03-19		
	FORM	First Named In	ventor Leal	Leahy, Dave		
		Art Unit	2173	3		
(to be used for all	correspondence after	Examiner Nam	e Ngu	yen, Cao H.		
,	ages in This Submission	Attorney Docke	et Number AP0	19CON3		
Total Number of Pa	ages iii Tilis Subfflissio)II ·				
		ENCLOSURES	(Check all that	apply)		
Amendment After Affid Extension of Express Aba Information Certified Cop Document(s Reply to Mis Incomplete A	Attached /Reply Final avits/declaration(s) f Time Request andonment Reques Disclosure Stateme py of Priority) ssing Parts/	CD, Number of C Landscape Remarks * Form PTO/SB/08a EFS * Form PTO/SB/08a EFS * Form PTO/SB/08a EFS * Form PTO/SB/08a EFS	rt to a cation /, Revocation spondence Addre ner nd D(s) Table on CD -Web Form No. 1 -Web Form No. 2 -Web Form No. 3	* Tra * Inf See (14 pages) (8 pages) (8 pages) (8 pages)	Appea of App Appea (Appea Propri Status Other below	I Form (2 pages) n Disclosure Statement (2 pages)
	610	* References (239 items,		V OR AC	CNT	
Firm Name	510	SNATURE OF APPLICAN	II, AIIORNE	i, UK AG	I NI	
	ntellectual Property	Legal Counsel				
	Anatoly S. Weiser/					
Printed name A	natoly S. Weiser					
Date N	larch 30, 2010		Reg. I	No. 43,229	9	
CERTIFICATE OF TRANSMISSION/MAILING						
sufficient postage as the date shown belo	s first class mail in a	e is being facsimile transmitted t in envelope addressed to: Comi				
Signature /Anatoly S. Weiser/						
Typed or printed nar	me Anatoly S. V	Veiser			Date	March 30, 2010

are required to respond to Application Number

This collection of information is required by 37 CFR 1.5. 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 and1.14. This collection is estimated to 2 hours 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: **March 19, 2009**

For: System and Method for Enabling

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2173

Examiner: Cao H. Nguyen

Attorney File No.: AP014CON3

Office Action Mailed On: 2/1/2010

Confirmation No.: 6412

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

INFORMATION DISCLOSURE STATEMENT (No. 02)

Dear Examiner Nguyen:

Attached hereto are forty-two pages of Form PTO/SB08/A (or substitute therefor) listing documents believed relevent to the above-referenced Application. It is respectfully requested that these documents be considered by the Examiner and an initialed copy of each page be returned to the undersigned attorney.

This disclosure statement should not be construed as a representation that no other material information as defined in 37 C.F.R. § 1.56(a) exists.

The undersigned attorney believes that this disclosure complies with the requirements of 37 C.F.R. §§ 1.56, 1.97 & 1.98, and the Manual of Patent Examing Procedure §609. If the Examiner considers otherwise, the Examiner is respectfully requested to call the undersigned attorney so that any deficiencies can be remedied.

A copy of each document, other than U.S. patents and published applications, is enclosed. Some documents may have markings thereon. We do not intend any significance to attach to the markings.

AP 019CON3 Patent

These documents are not necessarily analogous art.

The disclosure information is being filed before the mailing date of any of a final action under § 1.113, a notice of allowance under § 1.311, or an action that otherwise closes prosecution in the present application. The information is accompanied by the fee set forth in 37 C.F.R. § 1.17(p), which is hereby authorized to be charged to Deposit Account Number 50-3196. The information should therefore be considered. MPEP § 609; 37 C.F.R. § 1.97(c)(2).

To discuss any matter pertaining to the above referenced application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Respectfully submitted,

Date: March 30, 2010

/Anatoly S. Weiser/ Anatoly S. Weiser Intellectual Property Legal Counsel 3525 Del Mar Heights Rd, #295 San Diego, CA 92130 (858) 720-9431 Reg. No. 43,229

Electronic Acl	Electronic Acknowledgement Receipt					
EFS ID:	7319693					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser./Irene Betke					
Filer Authorized By:	Anatoly Weiser.					
Attorney Docket Number:	AP019CON3					
Receipt Date:	30-MAR-2010					
Filing Date:	19-MAR-2009					
Time Stamp:	17:56:36					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted with Payment			no			
File Listing:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	NPL Documents		a19.pdf	20304657	no	114
'	Nr L Documents		a 1 3. pui	3fa76a817e1f9dcc82c1a11fc60ea0de06f5e 263		
Warnings:						
Information:						

2		a 20-22. pdf	6143962 419e9b7748c32df555bb70d7b77655230fc	yes	29
	Multip	art Description/PDF files in .	8ddce		
	Document De	Start	E	nd	
	NPL Docum	nents	1		10
	NPL Docum	nents	11		19
	NPL Docum	nents	20	:	29
Warnings:					
Information:					
3	NPL Documents	a 23 part 1. pdf	21740976 	no	22
1			f5c3		
Warnings: Information:					
information:			22592923		
4	NPL Documents	a 23 part 2. pdf	1f30df06b6bfb4f90e05d541bf25a6a37e82 4afd	no	22
Warnings:		ı	1		
Information:					
5	NPL Documents	a 23 part 3.pdf	24098829	no no	22
			162e2681ab07f33c4085087237d6e89f905 938b6		
Warnings:					
Information:					
6	NPL Documents	a 23 part 4. pdf	21744783	no	23
			5c7f55b6db18f463500842ad9944a02026d 5cf26		
Warnings:					
Information:		<u> </u>	1 1		
7		a24-27.pdf	15940743	yes	171
			df9e7f71063b984fd59df73243446a428eb1 4947		
	Multip	art Description/PDF files in	zip description		
	Document Description		Start	E	nd
	NPL Documents		1	3	
	NPL Documents		4		6

	NPL Documents		7		9	
	THE DOCUM	,				
	NPL Docum	nents	10	171		
Warnings:						
Information:						
8	NPL Documents	a 28. pdf	23436420	no	36	
			b3d33ef110f128926e949fe06e9de5048146 57a6			
Warnings:						
Information:			15040297			
9		a29-39.pdf	15040287	yes	156	
			6ecffd9a17cf92a120b1fcf370f0a5b8ed183 6bf			
		art Description/PDF files in .				
	Document Des	scription	Start	E	nd	
	NPL Docum	nents	1	11		
	NPL Docum	NPL Documents			17	
	NPL Docum	nents	18	31		
	NPL Docum	nents	32	52		
	NPL Docum	nents	53	58		
	NPL Docum	nents	59	81		
	NPL Docum	nents	82	87		
	NPL Docum	nents	88	96		
	NPL Documents		97	111		
	NPL Documents		112	131		
	NPL Documents		132	156		
Warnings:			1			
Information:						
10		a40-42.pdf	8276067 02cea673f0c8dcda0ffcc86d52c198b4903ef	yes	160	
			5e6			

	Multip	art Description/PDF files in	zip description		
	Document Des	scription	Start	End	
	NPL Docum	nents	1	14	
	NPL Docum	nents	15	1-	42
	NPL Docum	nents	143	10	50
Warnings:					
Information:					
11	NDI Documento	242 pdf	18732570	no	226
11	NPL Documents	a43.pdf	508cb1667809a57e03064f35563528ca8afe a0fe	no	336
Warnings:					
Information:					
12		a44-50.pdf	14775070	yes	220
			58e7845fe8bf3a53b0086a40e349063a47af b904		
	Multip	art Description/PDF files in	zip description		
	Document Des	scription	Start	End	
	NPL Docum	nents	1	147	
	NPL Docum	nents	148	157	
	NPL Docum	nents	158	168	
	NPL Docum	nents	169	177	
	NPL Docum	nents	178	184	
	NPL Docum	nents	185	204	
	NPL Documents		205	220	
Warnings:					
Information:				•	
13		2a1-11.pdf	13205727	yes	130
		241 11.541	7373066377200a43f7ec64cfc610509f9c77 ebfb	y c 3	
	Multip	art Description/PDF files in	zip description		
	Document Des	scription	Start	Eı	nd

	Total Files Size (in bytes):	226	6033014
Information			
Warnings:			
	NPL Documents	85	130
	NPL Documents	73	84
	NPL Documents	68	72
	NPL Documents	63	67
	NPL Documents	59	62
	NPL Documents	57	58
	NPL Documents	42	56
	NPL Documents	32	41
	NPL Documents	24	31
	NPL Documents	15	23
	NPL Documents	1	14

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:	7320066			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser./Irene Betke			
Filer Authorized By:	Anatoly Weiser.			
Attorney Docket Number:	AP019CON3			
Receipt Date:	30-MAR-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	18:26:41			
Application Type:	Utility under 35 USC 111(a)			

Submitted wi	th Payment	no			
File Listin	g:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2a12-28.pdf	12524190	yes	129
'		7ad33f17fd1180b901299876399bd77a762		129	

	Multipa	art Description/PDF file:	s in .zip description		
	Document Desc	cription	Start	Er	nd
	NPL Docume	ents	1	8	3
	NPL Docume	ents	9	1	6
	NPL Documents		17	2	6
	NPL Docume	ents	27	3	7
	NPL Docume	ents	38	4	1
	NPL Documents		42	4	7
	NPL Documents		48	5	4
	NPL Documents		55	6	6
	NPL Documents		67	7	0
	NPL Documents		71	7	3
	NPL Documents		74	7	9
	NPL Documents		80	8	7
	NPL Documents		88	9	6
	NPL Docume	ents	97	108	
	NPL Docume	ents	109	112	
	NPL Docume	ents	113		22
	NPL Docume	ents	123	129	
arnings:					
formation:	1			i	
2		2a29-35.pdf	15815086	yes	307
			a37cd20c7cfc4a1db6ea6444619163abb92 7fd3f		
	Multipa	art Description/PDF files	s in .zip description		
	Document Des	cription	Start	Er	nd

	NPL Documen	nts	1	1.	28
	NPL Documen	nts	129	149	
	NPL Documen	150	165		
	NPL Documen	166	1	71	
	NPL Documen	172	1	78	
	NPL Documen	179	2	42	
	NPL Documents		243	3	07
Warnings:					
Information					
3		2a36-47.pdf	17835820	yes	206
			145fa856388de9f915877fe5cea18670716f9 a4e		
	Multipar	t Description/PDF files in .	zip description		
	Document Description		Start	End	
	NPL Documents		1	82	
	NPL Documen	nts	83	92	
	NPL Documen	nts	93	1	02
	NPL Documen	nts	103	110	
	NPL Documen	nts	111	1	24
	NPL Documen	nts	125	1	34
	NPL Documents		135	1.	46
	NPL Documents		147	1	50
	NPL Documents		151	1	68
	NPL Documen	nts	169	1	75
	NPL Documen	nts	176	1	98

	NPL Documents		199	2	06
Warnings:					
Information:					
4		2a48-50.pdf	2049562	yes	33
·		20.75 2 3.76 20.	44c942ecc40a240451cd2014b554ceac592 01a56	, ==	
	Multip	in .zip description			
	Document Description		Start	E	nd
	NPL Documents		1		8
	NPL Docum	9	2	25	
	NPL Docum	nents	26	3	33
Warnings:					
Information:			15003763		
5	5	3a1-14.pdf	15092763	yes	196
	aa 144	. D (DDF 61	abf2fecc6daad1add200777ee4ae689aa5a4 15f1		
		art Description/PDF files		_	
	Document Des	scription	Start	E	nd
	NPL Docum	nents	1	59	
	NPL Docum	nents	60	68	
	NPL Docum	nents	69	88	
	NPL Docum	nents	89	1	03
	NPL Docum	nents	104	109	
	NPL Docum	nents	110	1	17
	NPL Documents		118	1	25
	NPL Docum	nents	126	1	35
	NPL Docum	nents	136	1	47
	NPL Docum	nents	148	1	52

	NPL Docum	nents	153	1	79
	NPL Docum	180	181		
	NPL Docum	NPL Documents			91
	NPL Docum	192	1	96	
Warnings:			1	<u> </u>	
Information:					
6		3a15-17.pdf	8145761	yes	104
J		5a 1 5-17. pui	71562a4b48dad09a3a9e1aa420660e6bb2 1feacb	yes	104
	Multip	art Description/PDF files in .	zip description		
	Document Des	Document Description		End	
	NPL Docum	NPL Documents		93	
	NPL Docum	NPL Documents		101	
	NPL Docum	102	104		
Warnings:					
Information:					
7		3a 18-20. pdf	13996502	yes	294
		·	78323faf8c8c82aae2660fe7cb38386b2a44 ed5c	•	
	Multip	art Description/PDF files in .	zip description		
	Document Des	Document Description		E	nd
	NPL Docum	NPL Documents		255	
	NPL Docum	NPL Documents		268	
	NPL Docum	269	294		
Warnings:			1		
Information:					
		Total Files Size (in bytes)	854	459684	
		Total Files Size (III bytes)	634	+39004	

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

Electronic Acknowledgement Receipt				
EFS ID:	7320810			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser./Irene Betke			
Filer Authorized By:	Anatoly Weiser.			
Attorney Docket Number:	AP019CON3			
Receipt Date:	30-MAR-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	19:47:17			
Application Type:	Utility under 35 USC 111(a)			

Submitted wi	th Payment	no			
File Listin	g:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		3a21-29.pdf	14989002	yes	161
'		9cb21712163a2b0c14fd6354bfdb82a5b36 a7859	,	.01	

Document Description Start End NPL Documents 1 2 NPL Documents 3 17 NPL Documents 18 20 NPL Documents 21 24 NPL Documents 25 43 NPL Documents 44 48	
NPL Documents 3 17 NPL Documents 18 20 NPL Documents 21 24 NPL Documents 25 43	
NPL Documents 18 20 NPL Documents 21 24 NPL Documents 25 43	
NPL Documents 21 24 NPL Documents 25 43	
NPL Documents 25 43	
NPL Documents 44 48	
NPL Documents 49 89	
NPL Documents 90 120	
NPL Documents 121 142	
NPL Documents 143 161	
Warnings:	
Information:	
2 3a30-38.pdf 10048452 yes	151
661d6f2030398c583ef67100419a70aa06bf 9784	
Multipart Description/PDF files in .zip description	
Document Description Start End	
NPL Documents 1 22	
NPL Documents 23 41	
NPL Documents 42 47	
NPL Documents 48 52	
NPL Documents 53 58	
NPL Documents 59 63	
NPL Documents 64 71	

,			1		
	NPL Docum	72	116		
	NPL Docum	117	151		
Warnings:					
Information:					
3		3a39-43.pdf		yes	65
		·	55bf024d00ae67ffe14c2bf195c8937131d8 96f5	,	
	Multip	art Description/PDF files in	zip description		
	Document Des	cription	Start	E	nd
	NPL Documents		1	2	23
	NPL Documents		24	2	12
	NPL Documents		43	5	53
	NPL Docum	54	57		
	NPL Docum	58	65		
Warnings:					
Information:					
4		3a44-50.pdf	6849280	yes	56
			6dc15b2e071edaa6da5d1bc9ab14faf4154 894e9		
	Multip	art Description/PDF files in	zip description		
	Document Des	cription	Start	End	
	NPL Docum	ents	1	4	
	NPL Documents		5	14	
	NPL Documents		15	21	
	NPL Documents		22	29	
	NPL Documents		30	32	
	NPL Documents		33	46	
	NPL Docum	ents	47	5	56
Warnings:					

Information:					
5		4a1-6.pdf	8448475	yes	74
		14 7 5,541	ac6bb0779de93e0d86fccb138e66df6e4b8 bb565	,	, ,
	Multip	oart Description/PDF files	in .zip description		
	Document De	scription	Start	Eı	nd
	NPL Docum	nents	1	1	9
	NPL Docum	20	2	9	
	NPL Docum	nents	30	3	3
	NPL Docum	nents	34	4	9
	NPL Documents		50	6	2
	NPL Docum	63	74		
Warnings:					
Information:		I			
6	6 4a7-10.pdf		13242896	yes	239
			d07e1361e45abffca7749007e03eed44699c 996a		
		oart Description/PDF files	s in .zip description		
	Document De	scription	Start	Eı	nd
	NPL Documents NPL Documents NPL Documents		1	159	
			160	166	
			167	189	
	NPL Docum	190	239		
Warnings:					
Information:			1		
7		4a11-25.pdf	17529777	yes	212
			42b35dbc64e8b4542e7e29a9951e9e8dc6 bf5b36		
	Multip	part Description/PDF files	s in .zip description		
	Document De	scription	Start	E1	nd
	NPL Docum	1		2	

	NPL Documents	13	19
	NPL Documents	20	27
	NPL Documents	28	31
	NPL Documents	32	34
	NPL Documents	35	52
	NPL Documents	53	62
	NPL Documents	63	76
	NPL Documents	77	116
	NPL Documents	117	120
	NPL Documents	121	127
	NPL Documents	128	169
	NPL Documents	170	176
	NPL Documents	177	203
	NPL Documents	204	212
Warnings:			
Information			
	Total Files Size (in bytes):	83	478606

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

Electronic Acknowledgement Receipt				
EFS ID:	7321019			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser./Irene Betke			
Filer Authorized By:	Anatoly Weiser.			
Attorney Docket Number:	AP019CON3			
Receipt Date:	30-MAR-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	20:24:55			
Application Type:	Utility under 35 USC 111(a)			

Submitted wi	Submitted with Payment no					
File Listin	g:					
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1			4a26-36.pdf	14289691	yes	105
·		'	b449f2ed3790c28073d02bbcb1f26a15ef09 9513	,		

	Multipart Description/PDF files in .zip description					
	Document Des	scription	Start	E	nd	
	NPL Docum	1		16		
	NPL Docum	17	:	37		
	NPL Docum	nents	38	4	48	
	NPL Docum	nents	49	(50	
	NPL Docum	nents	61	(54	
	NPL Docum	nents	65	:	71	
	NPL Docum	nents	72	;	76	
	NPL Docum	nents	77		39	
	NPL Docum	nents	90	96		
	NPL Docum	NPL Documents		100		
	NPL Documents		101	105		
Warnings:						
Information:		<u> </u>	I I			
2		4a37-38.pdf	11677117	yes	178	
			5fafe11c06a510404acb186bd8a9fff440a4d 7ed			
	Multip	art Description/PDF files in	zip description			
	Document Des	scription	Start	E	nd	
	NPL Docum	nents	1	169		
	NPL Documents		170	178		
Warnings:						
Information:						
3		4a39-41.pdf	12676625	yes	56	
		4aɔਝ-41.pui –				
	Multip	art Description/PDF files in	zip description			
	Document De	scription	Start	E	nd	

	NPL Docum	1	35			
	NPL Docum	36	2	19		
	NPL Docum	50	<u>.</u>	56		
Warnings:						
Information:						
4		4a42-47.pdf	24797586	yes	304	
·		14.12.17.1941	88d3d1c882dd123d40a37c4446e14f8732f ae250	yes	301	
	Multip	art Description/PDF files in .	zip description			
	Document De	scription	Start	Е	nd	
	NPL Docum	nents	1	2	27	
	NPL Docum	228	2	31		
	NPL Docum	232	263			
	NPL Docum	NPL Documents			287	
	NPL Docum	288	297			
	NPL Docum	nents	298	304		
Warnings:						
Information						
5		4a48-50.pdf	1613759	yes	23	
			887c9f320b928fbe13ddb1da7b63e3b1a50 d1761	·		
	Multip	art Description/PDF files in .	zip description			
	Document Des	scription	Start	E	nd	
	NPL Documents		1	4		
	NPL Documents		5	11		
	NPL Documents		12	23		
Warnings:						
Information:						
6		5a1-3.pdf	3351886 9b2fa30bf48dfb4bd168f3dc6a458eccc9bd	yes	18	
	d779					

	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	NPL Documents	1	12		
	NPL Documents	13	17		
	NPL Documents	18	18		
Warnings:					
Information	:				
	Total Files Size (in bytes):	68	406664		

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

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

For: System and Method for Enabling

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2173

Examiner: Cao H. Nguyen

Attorney File No.: AP 019CON3

Office Action Mailed On: 2/1/2010

Confirmation No.: 6412

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This paper is responsive to the outstanding Office action mailed on the date shown above (the "Office Action").

The Office Action set a shortened statutory period of three months for reply. Applicants petition for a time extension of two months under 37 CFR § 1.136(a)(1), and authorization is hereby granted to charge the small entity time extension fee under 37 CFR § 1.17(a) to Deposit Account No. 50-3196. If the undersigned attorney is mistaken regarding the time extension calculation, Applicants petition for a necessary extension of time, and authorization is hereby granted to charge

Patent

the small entity time extension fee under 37 CFR § 1.17 required for the filing of this Reply to the same Deposit Account. This Reply is therefore timely.

Authorization is also granted to charge to the same Deposit Account a small entity fee for filing the attached Terminal Disclaimer, additional claim fees (if any), and all other fees necessary to file this Reply and applicable to a small entity.

Amendments to the claims are reflected in the listing of claims that begins on page 3 of this paper.

Remarks begin on page 6 of this paper.

REMARKS

Claim Status

Claims 4-11 are pending in the application. This paper amends claims 4; does not add new claims, and does not cancel any claims. The amendments are made without acquiescence to the rejections, without prejudice, without disclaimer, and without dedication to the public. Claims 4 and 11 are the independent claims of the application.

Summary of the Office Action

In the Office Action, the all claims were rejected as follows: (1) claims 4-11 were rejected on the ground of non-statutory obviousness-type double patenting, as being unpatentable over claims 1-20 of U. S. Patent No. 7,181,690 (the "'690 patent" in this paper); and (2) claims 4-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiio *et al.*, U.S. Patent Number 5,491,743 ("Shiio") in view of Farmer *et al.*, U.S. Patent Number 6,229,533 ("Farmer").

Applicants respectfully respond to the Office Action.

Double Patenting Rejections

To advance prosecution of the application, a terminal disclaimer is filed herewith.

Applicants respectfully submit that the terminal disclaimer obviates the double patenting rejections.

Art Rejections

In rejecting claim 4 as being unpatentable over Shiio and Farmer, the Office Action asserted that Shiio discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, citing Shiio's column 5, lines 42-60. It appears,

however, that neither in the cited portion nor elsewhere does Shiio disclose or suggest receiving position information for fewer than all of the conference participants in the virtual conference room.

Further, the Office Action acknowledged that "Shiio fails to explicitly teach determining, by the client device, a displayable set of the other user avatars associated with the client device display." To fill-in this gap in Shiio's disclosure, the Office Action then relied on Farmer's teaching to the effect that "... ghost objects have anonymity, and have limited interaction choices[,]" citing column 5, lines 1-36 of that reference. Applicants respectfully submit that in the teaching of ghosts is not tantamount to a disclosure or suggestion that the determination of the displayable avatars is made at a client device, rather than at the server.

Applicants also note that the effective date of Farmer is August 2, 1996. The priority date of the present application is the date of filing of U.S. Provisional Patent Application Ser. No. 60/020,296, that is, November 13, 1995. Therefore, Farmer is not prior art.

Applicants respectfully submit that independent claim 1 is patentable at least for the above reasons.

Independent claim 11 recites limitations identical or analogous to those of claim 1 discussed above, and stands rejected on the same ground as claim 1. Applicants respectfully submit that claim 11 is patentable at least for the reasons applicable to claim 1, as is discussed above.

Each dependent claim should be patentable at least for the reasons applicable to its base claim.

AP 008-2 UTL Patent

CONCLUSION

Applicants submit that all pending claims are allowable. To discuss any matter pertaining to the instant application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

Respectfully submitted,

Dated: July 1, 2010 /Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229 3525 Del Mar Heights Road, #295 San Diego, CA 92130 (858) 720-9431

PTO/S8/85 (97-06)

Approved for use through 07/54/2012, OMS 6865-0001 U.S. Potent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

(index the Passenger Regionage Agript 1995, ac persons are require the elected to a collection of information unless it displays a valid CMB across from the TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT APPESONN3 to re Application of: Dave Leahy et al. Application No. 12/40% 956 F6ed: 3/19/2009 FOR SYSTEM AND METHOD FOR ENABONG USERS TO INTERACT IN A VIRTUAL SPACE The names" <u>ylogics to:</u>

100 cerecut interest in the Instant application hereby disciding, except as provided below, the terminal part of the assistant term of any pation granted on the instant application which would extend beyond the emplaint rate of the full statutiny term prior patient for <u>7.18.880</u>, as the term of any potent is defined in 35 U.S.C. 154 and 173, and as the term of said prior patient is defined in 35 U.S.C. 154 and 173 and as the term of said prior patient is presently shortcod by any terminal declarate. The coverer hereby appreciation shall be enforceable only for and during such period that it and the information application shall be enforceable only for and during such period that it and the information are commonly owned. This agreement runs with any patient granted on the instant application and is binding upon the grantee, its authorsions or assigns. is making the above disclaimen, the owner does not disclaim the terminal part of the letter of any patent granted on the instant application that would extend to the experiment of the full standard term of said prior patent to precently shortened by any terminal disclaimer," in the event that said prior patent later:

applies for taking to cay a market saids here." In the event that said prior patent later:

applies for taking to cay a market saids. is now intermorease; is than diswelled by a court of competent jurisdiction; is statumely disclaimed in whole or terminally disclaimed under 07 CFR 1,321; has all distins cannoled by a ressentination certificate; is researced or is in eay manner terminated prior to use expiration of its full statutory term as presently shortened by any terminal disclaimer. Check either box 1 or 2 below, if appropriate. 1 Z For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency. etc.), the undersigned is empowered to antion behalf of the business/organization. I hereby decising that all statements made herein of my own knowledge arm true and that all statements made on in formation and helper are base ved to be true; a not further that to eas attainments were made, with the knowledge that within take a tatements and the like as made are quite habite by fine or impressment, or both, under Section 1001 of Tale 18 of the United States Onde and that such within takes subjected may proportion the validity of the application or any patent issued thereon. The undersigned is call attorney or agent of record. Pag. No. Elignatura Thurn Kidels Typed or printed name 6177258900 Y Terminal disclaimer fee under \$7 CFR 1 20(d) included WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PYO-2038.

This collection of information is required by \$7.079, 1320. This information is required to obtain or return a breast by this public where is to the (and by this 15570) to proceed an equilibration. Orbitalisation of the public where is to the (and by this 15570) to proceed an equipment of the process of t

"Statement, under 37 CFR 3,73(h) is required if terminal disclaimer is aignot by the assignme (named). Form PTO/SBPSE may be used for making this certification, See MFEP § 364.

If you need assistance in countering the form, call 1-800-910-9199 and select option 2.

Electronic Patent Application Fee Transmittal					
Application Number:	12406968				
Filing Date:	19-	19-Mar-2009			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Filer:	Anatoly Weiser.				
Attorney Docket Number:	AP	019CON3			
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 - 2 months with \$0 paid		2252	1	245	245

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Statutory disclaimer	2814	1	70	70
	Tot	al in USD	(\$)	315

Electronic Acknowledgement Receipt				
EFS ID:	7942637			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser.			
Filer Authorized By:				
Attorney Docket Number:	AP019CON3			
Receipt Date:	01-JUL-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	19:14:13			
Application Type:	Utility under 35 USC 111(a)			

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$315
RAM confirmation Number	7269
Deposit Account	503196
Authorized User	

File Listing:

Document	Document Description	File Name	File Size(Bytes)/	Multi	Pages
Number	Document Description	riie Naille	Message Digest	Part /.zip	(if appl.)

1	Amendment/Req. Reconsideration-After	Amendment 1-lmage.pdf	1274893	no	8
'	Non-Final Reject	Amendment image.pai	52439724dac205a09680585e11d2fb70ddc 0c09c	110	Ü
Warnings:					
Information:					
2	Terminal Disclaimer Filed	Terminal Disclaimer-Executed.	262393 recuted.		1
	reminar biselaimer riiea	pdf	aa39761927b1c1685eb54e75cb8a8f54daa 224ee	no	, i
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	.sheet (PTO-875) fee-info.pdf -		no	2
	100 77011,571000 (170 070)		dbf96e2b83536744369fb733678d108a0fe 94456		-
Warnings:					
Information:					
		Total Files Size (in bytes)	15	69410	

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

Electronic Acknowledgement Receipt				
EFS ID:	7942637			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Customer Number:	35070			
Filer:	Anatoly Weiser.			
Filer Authorized By:				
Attorney Docket Number:	AP019CON3			
Receipt Date:	01-JUL-2010			
Filing Date:	19-MAR-2009			
Time Stamp:	19:14:13			
Application Type:	Utility under 35 USC 111(a)			

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$315
RAM confirmation Number	7269
Deposit Account	503196
Authorized User	

File Listing:

Document	Document Description	File Name	File Size(Bytes)/	Multi	Pages
Number	Document Description	riie Name	Message Digest	Part /.zip	(if appl.)

1	Amendment/Req. Reconsideration-After	Amendment 1-I mage. pdf	1274893	no	8
"	Non-Final Reject	/unenamener image.pai	52439724dac205a09680585e11d2fb70ddc 0c09c		
Warnings:					
Information	:				
2	Terminal Disclaimer Filed	Terminal Disclaimer-Executed. pdf	262393	no	1
	Terminar Bracamier Fried		aa39761927b1c1685eb54e75cb8a8f54daa 224ee		
Warnings:					
Information	:				
3	Fee Worksheet (PTO-875)	fee-info.pdf	32124	no	2
	3 Tee Worksheet (F10-073)		dbf96e2b83536744369fb733678d108a0fe 94456		
Warnings:					
Information	:				
		Total Files Size (in bytes)	15	69410	
			1		

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

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					Δ	Application or Docket Number 12/406,968		Filing Date 03/19/2009		To be Mailed	
	APPLICATION AS FILED – PART I (Column 1) (Column 2)						SMALL	ENTITY 🛛	OR		HER THAN ALL ENTITY
	FOR		JMBER FIL		MBER EXTRA		RATE (\$)	FEE (\$)	<u> </u>	RATE (\$)	FEE (\$)
	BASIC FEE (37 CFR 1.16(a), (b),	or (c))	N/A		N/A		N/A	,		N/A	(1)
	SEARCH FEE		N/A		N/A	1	N/A		1	N/A	
	(37 CFR 1.16(k), (i), EXAMINATION FE (37 CFR 1.16(o), (p),	E	N/A		N/A		N/A			N/A	
	ΓAL CLAIMS	or (q))	mir	us 20 = *		1	x \$ =		OR	x \$ =	
IND	CFR 1.16(i)) EPENDENT CLAIM	S		inus 3 = *			x \$ =			x \$ =	
(37	CFR 1.16(h))	If the		ation and drawing	as exceed 100		Λ Ψ			× •	
	APPLICATION SIZE (37 CFR 1.16(s))	shee is \$29 additi	ts of pape 50 (\$125 onal 50 s	er, the application for small entity) sheets or fraction a)(1)(G) and 37	n size fee due for each n thereof. See						
	MULTIPLE DEPEN	IDENT CLAIM PR	ESENT (3	7 CFR 1.16(j))							
* If t	the difference in col	umn 1 is less than	zero, ente	r "0" in column 2.			TOTAL			TOTAL	
	APP	(Column 1)	AMEND	DED - PART II (Column 2)	(Column 3)		SMAL	L ENTITY	OR		ER THAN ALL ENTITY
TN:	07/01/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
ME	Total (37 CFR 1.16(i))	* 8	Minus	** 20	= 0	1	X \$26 =	0	OR	x \$ =	
AMENDMENT	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0		X \$110 =	0	OR	x \$ =	
٨ME	Application S	ize Fee (37 CFR 1	.16(s))								
`	FIRST PRESEN	NTATION OF MULTIF	LE DEPEN	DENT CLAIM (37 CFI	₹ 1.16(j))				OR		
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	
		(Column 1)		(Column 2)	(Column 3)				•		
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
MENT	Total (37 CFR 1.16(i))	*	Minus	**	=	1	x \$ =		OR	x \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x \$ =		OR	x \$ =	
Application Size Fee		ize Fee (37 CFR 1	.16(s))								
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR				
y. 15	the entry is	4 1-1 11 11		0 " "0"	and war 0		TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
** If	* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

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

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

CLAIM AMENDMENT

Please amend the claims in accordance with the following listing.

Listing of Claims

Claims 1-3 (Cancelled)

4. (Currently Amended) A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing the said each user in the virtual space, the method comprising:

customizing, using a client device processor, an avatar in response to input by the first user input;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process; and

determining, by the client device, a displayable set of the other user avatars associated with the client device display.

5. (Previously Presented) The method according to claim 4, further comprising the steps of: monitoring an orientation of the first user avatar, and

displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar.

6. (Previously Presented) The method according to claim 4, wherein customizing further comprises accessing a first database containing custom avatar images.

3

- 7. (Previously Presented) The method according to claim 6, wherein customizing further comprises selecting information from the first database that is used to render the avatar.
- 8. (Previously Presented) The method according to claim 4, further comprising receiving orientation information associated with fewer than all of the other user avatars.
- 9. (Previously Presented) The method according to claim 4, further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received.
- 10. (Previously Presented) The method according to claim 4, wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room.
- 11. (Previously Presented) A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:
 - a memory storing instructions; and
 - a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

receive position information associated with fewer than all of the other user avatars;

and

AP 008-2 UTL Patent

determine a set of the other users' avatars displayable on a screen associated with the

client device.

Application Number	Application/Control No.		Applicant(s)/Patent under Reexamination LEAHY ET AL.	
Document Code - DISQ		Internal Document – DO NOT MAIL		

TERMINAL DISCLAIMER	☐ APPROVED	☑ DISAPPROVED
Date Filed : June 1, 2010	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
Henry D. Jefferson
TD cannot be read please submit new TD.

U.S. Patent and Trademark Office

PTO/SS/86 (77-96)

Approved for use theology 07/51/2012, OMB 8881-9331

U.S. Patent and Toutemark Office, U.S. DEPARTMENT OF COMMERCE

Linder the Pagement Reduction Act of 1985, ac pictores are tegicled to received to a collection of information unless of degrees a ceed OMI content number.

TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING	Docket Number (Optional)
REJECTION OVER A "PRIOR" PATENT	AP019G0N3
to be Application of: Deve Leahy et al.	
Application No.: 12/4/8/200	
F8ed: 3/19/2009	
PAY SYSTEM AND METHOD FOR ENASKING USERS TO INTERACT IN A VIRTUAL SPACE	
The names, <u>Woods bit</u> , general interest is successful as provided below, the terminal part of the stablitury term of any extern granted on the instant the expression state of the full statistics part of the stablitury term of any extern granted on the instant and 173, and as the form of set price parts is presently shortened by any terminal decisioner. The granted may be instant application what the enforcement and during such participated to all the participated and the processing of the first and during such participated and the participated on the instant application and is bridged to the participated on the instant application and is bridged to the grantee. Its	I prior patent is defined in 38 U.S.C. 154 owner hereby agrees that any patent so prior patent are commonly owned. This
is making the shove disclaimer, his owner does not disclaim the terminal part of the ferm of any pation would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the pation is presently shortened by any terminal disclaimer," in the event that each prior patent later.	
expures for tallure to cay a maintenance lee; is held unenforceable.	n in the second of the second
is found invalid by a court of competent jurisdiction:	
is signarity disclaimed in whole or leminally disclaimed under 37 CFR 1,321	
has of dams conneled by a rescamination cartificate; is reseased, or	그 그 이 그는 그 한 독특의 함께를
is in any manner terminated prior to the expiration of its full statutory term as presently shortened	by any terminal disclaimer
Check either box 1 or 2 below, if appropriate.	
3 Z For submissions on behalf of a business/organization (e.g., popporation, performing, universit sto.), the undersigned is empowered to act on behalf of the business/organization.	y, government agoncy.
I hereby decising that all attainments maide hereby of my own knowledge are true and that is helter are bette used to be true, and further that this as attainments were made, with the knowledge that made are purish hable by the or impresentment, or both, under Seldion 1905 of 7 file 18 of the 1989 of statements may jeopardize the validity of the application or any patient based thereon.	t willful talee s talements and the like so.
2. The undereigned is up afternoon or agent of record. Pleg. No	
8. L	
	× 1.1
(ADAM) Chimming	6(1/10
Signatura	Date
Thum Kideti	
Typed or ported name	
	المالية في السمال من الأ
[[[[[[[[[[[[[[[[[[[[61772589
	Telephone Number
Y Terminal disclaimar fee under \$7 CFR 1 25(d) included	
CONCENSION OF THE STATE OF THE SECOND	author who lite and
WAPNING: Information on this form may become public. Cradit card inform be included on this form. Provide cradit card information and authorization	
纖물이 그림 낚시하는 어떻게 하는 폭하는 사람들이 되었다.	
"Statement, under 37 CFR 3.73(b) is tequired if terminal disclaimer is signed by the assignee (numer).	그는 이번째 그리네이 집을 했다.
Form PTO/SBISE may be used for making this perhitoston. See MPER § 384.	

From PT0//S8260 may be used for making his perfitneson. See 69°CP § 309.

This collection of information is required by \$7 CPR 1.8.0. This information is required to obtain it is not obtained by the pupils when is to file (and by the CPP 10 to proceed) an application. Confidentially is generated by \$1.9.0. T. 22 and \$7 CPR 1.11 and 1.13. This collection is instituted by talk of 2 retrieves to provide processing perganging and submitting the complisated application form to less (1871). These all very proposing the individual ease. Any permitted in the account of time your requirem complete this form and/or suggestions for reducing this builder, should be seen to the Christ Information Cifficen, U.S. Potent and Traintenate (Prints, U.S. Centroline) and Committee (P.O. Son 1868) (Security, V.A. 22313-1850). DO NOT SERV FREE OR COMPULTED FORMS TO THIS ACCIONS, SERVITO Committees for Patents, P.O. Son 1860, Alexandria, V.A. 22313-1850.

ACCRESIS SESSI TAY Commissionary or commission of the form, call 1-800-PTC-9168 and essent option 2

Electronic Acknowledgement Receipt					
EFS ID:	8457338				
Application Number:	12406968				
International Application Number:					
Confirmation Number:	6412				
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Customer Number:	35070				
Filer:	Anatoly Weiser.				
Filer Authorized By:					
Attorney Docket Number:	AP019CON3				
Receipt Date:	20-SEP-2010				
Filing Date:	19-MAR-2009				
Time Stamp:	18:37:27				
Application Type:	Utility under 35 USC 111(a)				

Submitted with	Payment	no			
File Listing:					
Document Number	Document Description	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Terminal Disclaimer Filed	Terminal Disclaimer 1.pdf	262183	no	1
i Terminai Discialmer Filed		Terriman Discialine 1. par	3c8095d64f3227fd39665d611b084ca5a0f1 71d7		
Warnings:					
Information:					

262183

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



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
12/406,968	03/19/2009	Dave Leahy	AP019CON3	6412	
35070 ANATOLY S.	7590 09/21/201 WEISER	0	EXAM	IINER	
	R HEIGHTS ROAD, #	NGUYEN, CAO H			
SAN DIEGO, C	A 92130		ART UNIT	PAPER NUMBER	
			2173		
			MAIL DATE	DELIVERY MODE	
			09/21/2010	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.

	Application No.	Applicant(s)
Office Action Community	12/406,968	LEAHY ET AL.
Office Action Summary	Examiner	Art Unit
	Cao (Kevin) Nguyen	2173
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tilt will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. mely filed n the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
1)⊠ Responsive to communication(s) filed on <u>01 Ju</u>	<u>ily 2010</u> .	
2a) This action is FINAL . 2b) ☑ This	action is non-final.	
3)☐ Since this application is in condition for allowar closed in accordance with the practice under E		
Disposition of Claims		
4)⊠ Claim(s) <u>4-11</u> is/are pending in the application.		
4a) Of the above claim(s) is/are withdrav	vn from consideration.	
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>4-11</u> 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 Examine	r.	
10)☐ The drawing(s) filed on is/are: a)☐ acce	epted or b) objected to by the	Examiner.
Applicant may not request that any objection to the	drawing(s) be held in abeyance. Se	e 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correcti		· · · · · · · · · · · · · · · · · · ·
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	e Action or form PTO-152.
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents		ı)-(d) or (f).
2.☐ Certified copies of the priority documents		tion No.
3. Copies of the certified copies of the prior		
application from the International Bureau	ı (PCT Rule 17.2(a)).	
* See the attached detailed Office action for a list	of the certified copies not receive	ed.
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview Summary	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Mail D 5) Notice of Informal F	· · · · · · · · · · · · · · · · · · ·
Paper No(s)/Mail Date 3/10.	6) Other:	

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

DETAILED ACTION

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.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiio (US Patent No. 5,491,743) in view of Suzuki et al. (US Patent No. 5,736,982).

Regarding claim 4, Shiio discloses a method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing the user in the virtual space, the method comprising: customizing, using a client device processor, an avatar in response to input by the first user input (animated characteristics representing operators in virtual conference; see col. 5, lines 16-62); receiving, by the client device, position information associated with fewer than all of the other

user avatars from a server process (see col. 5, lines 42-60); however, Shiio fails to explicitly teach determining, by the client device, a displayable set of the other user avatars associated with the client device display.

Suzuki discloses determining, by the client device, a displayable set of the other user avatars associated with the client device display (..the server is always supplied with the latest position information of the avatar from every terminal; see abstract and col. 1, lines 57-67 and col. 2, lines 1-13).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio and Suzuki before him at the time the invention was, modify the virtual conference system user of Shiio to include virtual space display method, as taught by Suzuki. One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality.

Regarding claim 5, Shiio discloses further comprising the steps of: monitoring an orientation of the first user avatar, and displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar (see figures 4-5).

Regarding claim 6, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 5, lines 18-49).

Regarding claim 7, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 20, lines 16-54 and figure 2A).

Regarding claim 8, Shiio discloses wherein customizing further comprises selecting information from the first database that is used to render the avatar (see col. 13, lines 14-67).

Regarding claims 9, Shiio discloses further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received (see col. 6, lines 49-67 and col. 7, lines 1-21).

Regarding claims 10, Shiio discloses wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room (see col. 7, lines 15-62.)

Claim 11 differs from claim 4 in that "create a custom avatar in response to input by the first user; receive position information associated with fewer than all of the other user avatars; and determine a set of the other users' avatars displayable on a screen associated with the client device." which read on Shiio (see col. 14, lines 42-67).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao (Kevin) Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.

Application/Control Number: 12/406,968 Page 5

Art Unit: 2173

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571)272-4057. 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.

/Cao (Kevin) Nguyen/ Primary Examiner, Art Unit 2173

9/10/10

Notice of References Cited	Application/Control No. 12/406,968	Applicant(s)/Patent Under Reexamination LEAHY ET AL.	
Notice of References Cited	Examiner	Art Unit	
	Cao (Kevin) Nguyen	2173	Page 1 of 1

U.S. PATENT DOCUMENTS

	C.G. I ATENT BOOMENTO								
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification				
*	Α	US-5,736,982	04-1998	Suzuki et al.	715/706				
	В	US-							
	n	US-							
	D	US-							
	Е	US-							
	F	US-							
	O	US-							
	Н	US-							
	_	US-							
	J	US-							
	К	US-							
	L	US-							
	М	US-							

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	Q					
	R					
	ß					
	Т					

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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20100912A

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

Mation Disclosure Statement (IDS) Filed

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.

	Application Number		12406968
	Filing Date		2009-03-19
INFORMATION DISCLOSURE	First Named Inventor	Leahy	, Dave
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173
(Not for Submission under or of K 1.55)	Examiner Name	Nguye	en, Cao H.
	Attorney Docket Number		AP019CON3

U.S.PATENTS Remove										
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D	ate	of cited Document		Releva	Columns,Lines where nt Passages or Relev s Appear	
	1									
If you wish to add additional U.S. Patent citation information please click the Add button.										
			U.S.P	ATENT.	APPLIC	CATION PUBL	LICATIONS		Remove	
Examiner Initial*	Cite N	o Publication Number	Kind Code ¹	Publication Date		Name of Patentee or Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
	1									
If you wisl	h to add	d additional U.S. Publis	shed Ap	plication	citation	n information p	lease click the Add	button	Add	
				FOREIG	N PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*			Country Kind Code ² j Code		Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	∍or V F	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T5
	1									
If you wisl	h to add	d additional Foreign Pa	atent Do	cument	citation	information pl	ease click the Add	button	Add	
			NON	I-PATEN	IT LITE	RATURE DO	CUMENTS		Remove	
Examiner Initials*	Examiner Cite Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item									T5

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.l	N./	1	HOLLOWAY et al., Virtual Environments: A Survery of the Technology (TR-93-033), Dept. Comp. Sci. U. of North Carolina,1993, pp. 1-57, Chapel Hill, NC, USA	
000000000000000000000000000000000000000		2	KAZMAN, Making WAVES: On the Design of Architectures for Low-end Distributed Virtual Environments, Proc. IEEE VRAIS '93, 1993, pp. 443-449, IEEE Computer Society Press, Los Alamitos, CA, USA	
000000000000000000000000000000000000000		3	KAZMAN, HIDRA: An Architecture for Highly Dynamic Physically Based Multi-Agent Simulations, 1995, Int. J. Comp. Simulation, Vol. 5, Iss. 2, pp. 149–164, Ablex Publishing Corp., Norwood, NJ, USA	
000000000000000000000000000000000000000		4	KAZMAN, Load Balancing, Latency Management and Separation of Concerns in a Distributed Virtual World, in ZOMAYA (ed.), Parallel Computations – Paradigms and Applications, 1995, pp. 480-497, Ch. 18, International Thompson Computer Press, London, UK	
000000000000000000000000000000000000000		5	KELLY, The First Online Sports Game Netrek is Mind Hockey on the Net, WIRED, 1993, pp. 54-55, Vol. 1, No.06, Wired USA Ltd., San Francisco, CA, USA	
000000000000000000000000000000000000000		6	KESSLER et al., A Network Communication Protocol for Distributed Virtual Environment Systems, Proc. VRAIS '96, 1996, pp. 214-222, IEEE Computer Society Press, Washington, D.C., USA	
		7	KOLLOCK, Invited Speaker: Design Principles for Online Communities: Lessons from Early Settlements, Proc. IEEE VRAIS '97, 1997, pg. 152, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1997.10002]	
		8	KUMAR et al., Interactive Display of Large-Scale NURBS Models, SI3D '95 Proc. of the 1995 symposium on Interactive 3D graphics, 1995, pp. 51-58 & 206, ACM Press, New York, NY, USA, USA [doi: http://doi.acm.org/10.1145/199404.199413]	
		9	KUTULAKOS et al., Affine Object Representations for Calibration-Free Augmented Reality, Proc. IEEE VRAIS '96, 1996, pp. 25-36, IEEE Computer Society Press, Washington, D.C., USA [doi: http://doi.ieeecompuersociety.org/10.1109/VRAIS.1996.490507]	
		10	LAMPTON et al., Distance Estimation in Virtual Environments, Proc. of the Human Factors and Ergonomics Soc. 39th Ann. Meeting, 1995, pp. 1268-1272, Human Factors and Ergonomics Society, Santa Monica, CA, USA	
/K.1	V./	11	LASTRA, Technology for Virtual Reality, Proc. of ACM SIGGRAPH '94: Course Notes 17 Programming Virtual Worlds, 1994, pp. 1-25, Ch. 3, ACM Press, New York, NY, USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

/K.I	N./	12	LATHAM, If VR is So Great, Why Are VR Entertainment Systems So Poor?, ACM SIGGRAPH Computer Graphics, 1994, Vol. 28 No. 2, pp. 113-114, ACM Press, New York, NY, USA	
000000000000000000000000000000000000000		13	LEA et al., Cool: System Support for Distributed Programming, Communications of the ACM, pp. 37-46, Vol. 36, No. 9, ACM Press, New York, NY, USA	
		14	LEVINE et al., Effect of Visual Display Parameters on Driving Performance in a Virtual Environments Driving Simulator, Proceedings of the Human Factors Society 40th Annual Meeting, 1996, pp. 1136-1140, The Human Factors Society, Santa Monica, CA, USA	
200000000000000000000000000000000000000		15	LEVISON et al., Use of Virtual Environment Training Technology for Individual Combat Simulation (TR 971), US Army Res. Institute for the Behav. Social Sci.,1993 pp. 1-85, ARI, Alexandria, VA, USA	
200000000000000000000000000000000000000		16	LEVOY et al., Gaze-Directed Volume Rendering (TR-89-048), Dept. Comp. Sci. U. of North Carolina,1989, pp. 1-7, Chapel Hill, NC, USA	
***************************************		17	LUEBKE et al., Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets, SI3D '95 Proc. of the 1995 symposium on Interactive 3D graphics, 1995, pp. 105-106, 212, ACM Press, New York, NY, USA, USA [doi: http://doi.acm.org/10.1145/199404.199422]	
000000000000000000000000000000000000000		18	MACEDONIA, A Network Software Architecture For Large Scale Virtual Environments, Naval Postgraduate School Dissertation, 1995, pp. 1-233, Monterey, CA, USA	
000000000000000000000000000000000000000		19	MACEDONIA et al., Exploiting Reality with Multicast Groups: A Network Architecture for Large-scale Virtual Environments, Proc. IEEE VRAIS '95, 1995, pp. 2-10, IEEE Computer Society Washington, D.C., USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1995.512473]	
000000000000000000000000000000000000000		20	MACEDONIA et al., NPSNET: A Network Software Architecture For Large Scale Virtual Environments, Presence, 1994, pp. 265-287, Vol. 3, No. 4, MIT Press, Cambridge, MA, USA	
000000000000000000000000000000000000000		21	MACEDONIA et al., NPSNET: A Multi-Player 3D Virtual Environment Over the Internet, Proc. of ACM SI3D '95, 1995, pp. 93-ff, ACM Press, New York, NY, USA	
/K	/ .N./	22	MANDEVILLE et al., GreenSpace: Creating a Distributed Virtual Environment for Global Applications, Proc. IEEE Networked Virtual Reality Workshop, 1995, pp. 1-15 [doi: http://www.hitl.washington.edu/publications/p-95-17/]	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	23	MARKOFF, Programmed for Life and Death, NY Times, 1990, New York, NY, USA print date 3/9/2010, 3 pages, http://www.nytimes.com/1990/08/26/weekinreview/ideas-trends-programmed-for-life-and-death.html	
000000000000000000000000000000000000000	24	MAULDIN, ChatterBots, TinyMuds, and the Turing Test: Entering the Loebner Prize Competition, Proc. of the Twelfth Nat. Conf. on Artificial Intelligence, 1994, pp. 16-21, Vol. 1, American Association for Artificial Intelligence Menlo Park, CA, USA	
000000000000000000000000000000000000000	25	MCCAULEY et al., Spatial Orientation and Dynamics in Virtual Reality Systems: Lessons from Flight Simulation, Proceedings of the Human Factors Society 345h Annual Meeting, 1991, pp. 1348-1352, Vol. 2, The Human Factors Society, Santa Monica, CA, USA	
	26	MCKENNA et al., Three Dimensional Visual Display Systems for Virtual Environments, Presence, 1992, pp. 421-458, Vol. 1, No. 4, MIT Press, Cambridge, MA, USA	
	27	MEYER e al., A Survey of Position Trackers, Presence, 1992, pp. 173-200, Vol. 1, No. 2, MIT Press, Cambridge, MA, USA	
	28	MICHALSKI, Multi-User Virtual Environments, Part I. Release 1.0, 1994, pp. 1-22, EDventure Holdings, New York, NY, USA	
	29	MICHALSKI, Multi-User Virtual Environments, Part II. Release 1.0, 1994, pp. 1-19, EDventure Holdings, New York, NY, USA	
	30	MINE, Interaction in a Virtual Environment, Proc. of ACM SIGGRAPH '94: Course Notes 17 Programming Virtual Worlds, 1994, pp. 1-20, Ch. 3, ACM Press, New York, NY, USA	
	31	MINE, Virtual Environment Interaction Techniques (TR95-018), Dept. Comp. Sci. U. of North Carolina,1989, pp. 1-18, Chapel Hill, NC, USA	
	32	MITCHELL, Virtual Reality and the Internet, Virtual Reality Special Report, 1995, pp. 35-38, Vol. 2, No. 1, Miller Freeman Inc., San Francisco, CA, USA	
/K.N./	33	MITSUTAKE et al., Open Sesame from Top of Your Head – An Event Related Potential Based Interface for the Control of the Virtual Reality System, Proc. of 2nd IEEE Int. Workshop on Robot and Human Communication, 1993, pp. 292-295, IEEE, Japan [doi: http://10.1109/ROMAN.1993.367705]	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	34	MOORE, How to Create a Low-cost Virtual Reality Network, Educational Media Int., 1993, pp. 37-39, Vol. 30, No. 1, Kogan Page Ltd., Letchworth, UK	
000000000000000000000000000000000000000	35	MORABITO, Enter the On-Line World Of Lucasfilm, RUN, 1986, pp. 24-28, Vol. 3 No. 8	
000000000000000000000000000000000000000	36	MORIUCHI et al., Communication Control Method in a Multiple User Communication Environment with a Virtual Space, 1995, IEICE Journal, pp. 21-25, Vol. 94, No. 458, Japan	
000000000000000000000000000000000000000	37	MORNINGSTAR, The Ghu Ghuide (A manual for God's Handy Utility), 1987, pp. 1-45, Lucasfilm Ltd. Games Division, USA	
000000000000000000000000000000000000000	38	MORNINGSTAR et al., The Lessons of Lucasfilm's Habitat, in BENEDIKT (ed.), Cyberspace: First Steps, 1991, pp: 273-301, Ch. 10, MIT Press, Cambridge, MA, USA	
000000000000000000000000000000000000000	39	MORNINGSTAR et al., A Comprehensive Guide to Understanding HabitatTM, In The official Avatar Handbook, 1997, pp. 1-43, Vienna, VA, USA http://www.dsgames.net/qlink/habitat/Habitat%20Manual.pdf	
	40	MORRISON, The VR-Link ™ Networked Virtual Environment Software Infrastructure, Presence, 1995, pp. 194-208, Vol. 4, No. 2, MIT Press, Cambridge, MA, USA	
	41	MOYES, Searching for Ron Britvich articles Part 1 and 2 in The Moyes Report, An independent source for real news in the world of technology, http://www.roderickmoyes.50megs.com/brit1.html, print date 3/26/2009, 12 pages	
	42	MULLIGAN, History of Online Games, Imaginary Realities E-magazine, 2000, pp. 1-4, print date 05/13/2009, 4 pages, http://tharsis-gate.org/articles/imaginary/HISTOR~1.HTM	
***	43	NAKAMURA et al., Distributed Virtual Reality System for Cooperative Work, NEC Res. & Develop. 1994, pp. 403-409, Vol. 35, No. 4, Japan Publications Trading Co., Ltd., Tokyo, JP	
/K.N	./ 44	NAYLOR, Interactive Playing with Large Synthetic Environments, ACM SI3D Graphics '90, 1990, pp. 107-108, 212, ACM Press, New York, NY, USA	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K	.N./	45	NAYLOR et al., Merging BPS Trees Yields Polyhedral Set Operations, ACM SIGGRAPH '90 Computer Graphics, 1990, Vol. 24 No. 4, pp. 115-124, ACM Press, New York, NY, USA							
	330000000000000000000000000000000000000	46	O'CONNELL et al., System Support for Scalable Distributed Virtual Worlds, ACM VRST '96, 1996, pp. 141-142, ACM Press, New York, NY, USA							
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	47	OLANO et al., Combatting Rendering Latency, SI3D '95 Computer Graphics, 1995, pp. 19-24, 204, ACM Press, New York, NY, USA							
	>0000000000000000000000000000000	48	PADGETT, Standards (Report: Current Activities in VR Standards at IEEE), Int. J. Virtual Reality, 1995, pp. 28-29, Vol. 1, No. 1, IPI Press, Colorado Springs, CO, USA							
	***************************************	49	PANDZIC et al., Motor functions in the VLNET Body-Centered Networked Virtual Environment, in GOBEL et al. (eds.), Proc. of the Eurographics Workshops in Monte Carlo, Monaco and in Prague, Czech Republic, 1996, pp. 94-103, Springer-Verlag London, UK							
\ / 	\ (.N./	50		nt Integrating Virtual Reality, Supercomputing and Design, Proc. of the Fifth listributed Computing, 1996, pg.306-307, IEEE Computer Society Press,						
If you	ı wis	h to a	d additional non-patent literature do	cument citation information please click the Add button Add						
			i i	EXAMINER SIGNATURE						
Exan	Examiner Signature /Cao Nguyen/ Date Considered 09/13/2010									
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										
Standa 4 Kind	¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.									

	Application Number		12406968
INFORMATION DISCLOSURE	Filing Date		2009-03-19
	First Named Inventor Leahy, Da		r, Dave
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173
(Not for Submission under 57 of K 1.33)	Examiner Name	Nguye	en, Cao H.
	Attorney Docket Numb	er	AP019CON3

	U.S.PATENTS Remove								
Exam Initial		Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
/K.	N./	1	4531184		1985-07-23	WIGAN et al.	o		
		2	4555781		1985-11-26	BALDRY et al.	o		
		3	4572509		1985-02-25	SITRICK	О		
		4	4738451		1988-04-19	LOGG	О		
		5	4805134		1989-02-14	CALO et al.	О		
		6	4953159		1990-08-28	HAYDEN et al.	О		
		7	4976438		1990-12-11	TASHIRO et al.	О		
/K	.N./	8	5014267		1991-05-07	TOMPKINS et al.	0		

(Not for submission under 37 CFR 1.99)

Application Number		12406968	
Filing Date		2009-03-19	
First Named Inventor	Leahy	, Dave	
Art Unit		2173	
Examiner Name	Nguy	en, Cao H.	
Attorney Docket Number		AP019CON3	

/K.N./	9	5083271		1992-01-21	THACHER et al.	o
	10	5206934	А	1993-04-23	NAEF III	o
000000000000000000000000000000000000000	11	5347306	А	1994-09-13	NITTA	o
000000000000000000000000000000000000000	12	5379374	А	1995-01-03	ISHIZAKI et al.	o
000000000000000000000000000000000000000	13	5481297	А	1996-01-02	CASH et al.	O
000000000000000000000000000000000000000	14	5491743	А	1996-02-13	SHIIO et al.	O
000000000000000000000000000000000000000	15	5502727	A	1996-03-26	CATANZARO et al.	О
200000000000000000000000000000000000000	16	5537548	А	1996-07-16	FIN et al.	O
200000000000000000000000000000000000000	17	5630757	А	1997-05-20	GAGIN et al.	O
000000000000000000000000000000000000000	18	5642337	А	1997-06-24	OSKAY et al.	O
/K.N./	19	5659691	А	1997-08-19	DURWARD et al.	О

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K. N.	./ 20	5667440	A	1997-09-16	SASAKI et al.	o
000000000000000000000000000000000000000	21	5736982	А	1998-04-07	SUZUKI et al.	О
900000000000000000000000000000000000000	22	5745711	А	1998-04-28	KITAHARA et al.	О
***************************************	23	5748894	А	1998-05-05	ISHIZAKI et al.	О
000000000000000000000000000000000000000	24	5784570	А	1998-07-21	FUNKHOUSER	О
000000000000000000000000000000000000000	25	5799320	А	1998-08-25	KLUG	О
000000000000000000000000000000000000000	26	5816920	A	1998-10-06	HANAI	O
000000000000000000000000000000000000000	27	5880731	A	1999-03-09	LILES et al.	o
000000000000000000000000000000000000000	28	5950202	А	1999-09-07	DURWARD et al.	O
***************************************	29	5958006	А	1999-09-28	EGGLESTON et al.	О
/K.	.N./	6175842	B1	2001-01-16	KIRK et al.	0

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguy	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	31	6229533	B1	2001-05	5-08	FARMER et al		0		
	32	6734885	B1	2004-05	5-11	MATSUDA		0		
	33	6961755	B2	2005-01	I-11	MATSUDA		0		
/K.N./	34	0035314	E	1996-08	3-20	LOGG		0		
If you wis	If you wish to add additional U.S. Patent citation information please click the Add button.									
			U.S.P	ATENT	APPLI	CATION PUBI	LICATIONS		Remove	
Examiner Initial*	ner Cite No Publication Kind Publication Number Date		ation	of sited Document			,Columns,Lines wl ant Passages or Re s Appear			
	1									
If you wis	h to ac	ld additional U.S. Publ	ished Ap	plication	n citatio	n information p	olease click the Ade	d button	. Add	
				FOREIG	GN PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patente Applicant of cited Document	e or V F	Pages,Columns,Li where Relevant Passages or Relev Figures Appear	_{T5}
/K.N./	1	1995-08793	wo		A1	1995-03-30	DURWARD et al.			
/K.N./	2	1995-10157	wo		A1	1995-04-13	LUDWIG et al.			

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	3	1995-31059	wo	A1	1995-11-16	PERLMAN	
000000000000000000000000000000000000000	4	1997-43718	wo	A1	1996-11-20	WATERS	
000000000000000000000000000000000000000	5	1999-16226	wo	A1	1999-04-01	DILLON et al.	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	6	2002-25586	WO	A2	2002-03-28	ELBER et al.	
оросоновновновновновного	7	2242626	CA	С	2002-10-29	MALKIN et al.	
***************************************	8	0279558	EP	A1	1988-08-24	BIANCO et al.	
000000000000000000000000000000000000000	9	0645726	EP	A2	1995-03-29	CARLTON et al.	
000000000000000000000000000000000000000	10	0645931	EP	A1	1995-03-29	SCHWARTZ et al.	
000000000000000000000000000000000000000	11	0713171	EP	A1	1996-05-22	TANAKA	
000000000000000000000000000000000000000	12	0717544	EP	A2	1996-06-19	ALTOM et al.	
/K.N./	13	0736832	EP	A2	1996-10-09	FUNKHOUSER	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

							,	
/K.N./	14	0867838	EP	A2	1998-09-30	STROHECKER et al.		
200200000000000000000000000000000000000	15	2227625	GB	A	1990-08-01	ORDISH		
200000000000000000000000000000000000000	16	2326802	GB	А	1998-12-30	DIAS et al.		
verveeprooddessessingverstaa	17	1993-05113941	JP	A	1993-05-07	KAWATE et al.		
000000000000000000000000000000000000000	18	1994-06121311	JP	A	1994-04-28	MENJU		
000000000000000000000000000000000000000	19	1994-06152765	JP	A	1994-05-31	WATANABE		
000000000000000000000000000000000000000	20	1994-06165173	JP	А	1994-06-10	HIBINO et al.		
ооорхионализического	21	1995-07056497	JP	A	1995-03-03	ATSUSHI et al.		
050000000000000000000000000000000000000	22	1995-07147673	JP	A	1995-06-06	NAGASHIMA et al.		
	23	1996-08063416	JP	А	1996-03-08	KITANO		
/K.N	,/ 24	1996-08087605	JP	А	1996-04-02	KITANO		

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	25	1996-08131655	JP	A	1996-05-28	KANGO et al.	
/K.N./	26	1996-08212173	JP	А	1996-08-20	INUDOU et al.	
000000000000000000000000000000000000000	27	1996-08256146	JP	А	1996-10-01	GAGIN et al.	
000000000000000000000000000000000000000	28	1997-09023275	JP	А	1997-01-21	TANIGAWA	
***************************************	29	1997-09034874	JP	А	1997-02-07	HOSOYA et al.	
000000000000000000000000000000000000000	30	1997-09081400	JP	А	1997-03-28	KAZUKI et al.	
***************************************	31	1997-09081781	JP	А	1997-03-28	MORIUCHI	
000000000000000000000000000000000000000	32	1997-09164271	JP	А	1997-06-24	KIKUCHI et al.	
00000	33	1997-09244845	JP	А	1997-09-19	REKIMOTO	
700000000000000000000000000000000000000	34	1998-10105538	JP	А	1998-04-24	MIYASHITA et al.	
/K.N	35	1998-10207684	JP	А	1998-08-07	KIOCHI et al.	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguy	en, Cao H.		
Attorney Docket Number		AP019CON3		

If you	wis	h to ac	dd additional Foreign Patent Document citation information please click the Add button Add							
			NON-PATENT LITERATURE DOCUMENTS Remove							
	Examiner C Initials*		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the iter (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.							
/K.	.N./	1	http://1997.webhistory.org/www.lists/www-vrml.1994/0132.html, WEB: Webworld, print date 03/20/2009, 1 page							
		2	http://elonka.com/SimuTimeLine.html, Simutronics Timeline, print date 4/2/2009, 3 pages							
		3	http://archive.legendsofkesmai.com/iok/miscellaneous/articles/worlds_of_kesmai.htm, Worlds of Kesmai Article, print date 03/25/2009, 3 pages							
		4	http://archive.legendsofkesmai.com/iok/guides/iok_bg_kompanion.htm, loK BG Kompanion A Comprehensive Guide to the Basic Game of Island of Kesmai, 2005, print date 03/25/2009, 53 pages							
	986689888988898888888888888888888888888	5	http://www.digibarn.com/collections/games/maze-war/hardware-maze-mit/index.html, The MAZE Game, print date 10/15/2009, 15 pages							
	<u> </u>	6	http://www.digibarn.com/collections/games/maze-war/macromind-mazewars/index.html, What do you do with your AppleTalk? Play Maze Wars+ of course!, print date 10/15/2009, 2 pages							
	000000000000000000000000000000000000000	7	http://www.digibarn.com/collections/games/maze-war/oracle-maze/index.html, Maze at INTEROP, print date 10/15/2009, 16 pages							
	30.000.000.000.000.000.000.000.000.000.	8	http://www.digibarn.com/collections/games/maze-war/other-mazes/MazeWar-for-Alto.html, MazeWar for Xerox Alto (email thread from 1982), print date 10/15/2009, 3 pages							
/K.I	V ./	9	http://www.digibarn.com/collections/games/maze-war/super-maze-wars/index.html, Super Maze Wars The Networkable 3-D Mazebattle Game, print date 10/15/2009, 15 pages							

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	10	http://www.digibarn.com/collections/games/xerox-maze-war/index.html, Celebrating Thirty Years (1974) of the world's first multiplayer 3D game environment!, print date 10/15/2009, 4 pages	
000000000000000000000000000000000000000	11	http://www.digibarn.com/history/04-VCF7-MazeWar/blog/index.html, We welcome your stories about Maze, how it changed your life (or didn't)!, print date 10/15/2009, 2 pages	
0000	12	http://www.digibarn.com/history/04-VCF7-MazeWar/index.html, The First First Person Shooter, print date 10/15/2009, 3 pages	
000000000000000000000000000000000000000	13	http://www.digibarn.com/history/04-VCF7-MazeWar/panelists/index.html, Greg Thompson, Chief Video Architect, Cisco's Video Networking Business Unit, print date 10/15/2009, 3 pages	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	14	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/colley.html, Steve Colley's account of the beginning of Maze (and other history and thoughts), print date 10/15/2009, 2 pages	
000000000000000000000000000000000000000	15	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/guyton.html, Jim Guyton's Story of Maze at Xerox (Alto and Star), print date 10/15/2009, 2 pages	
000000000000000000000000000000000000000	16	http://www.digibarn.com/history/04-VCF7-MazeWar/stories/lebling.html, David Lebling's Story of Maze at MIT (1974+), print date 10/15/2009, 2 pages	
	17	http://www.worlds.com/press-releases/PaidWorldsContract-08-12-08.html, WORLDS.COM Inc. and PAID, INC. sign reciprocal licensing agreements, print date 08/25/2009, 3 pages	
000000000000000000000000000000000000000	18	AIR WARRIOR Version 0.8 Manual, 1987, pp. 1-42, Kesmai Corporation, USA	
300000000000000000000000000000000000000	19	AIR WARRIOR Version 1.2 Game Manual, 1989, pp. 1-91, Kesmai Corporation, USA	
/K.N./	20	Club Caribe Guidebook, 1989, pp. 1-12, Quantum Computer Services, Inc. and Lucasfilms Ltd., USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.	N./	21	comp.groupware FAQ: Products 4: Frequently Asked Questions, Groupware Products, Part four, (comp.groupware notes.misc. Lotus Notes related discussions) 1997, print date 5/13/2009, 9 pages, http://www.faqs.org/faqs/comp-groupware-faq/products4/	
		22	DOOM Game Manual, 1993, pp. 1-13, Software Publishers Association, Washington D.C., USA	
		23	INTERACTION MAGAZINE, Spring 1992, pp. 1-82, Parts 1-4	
		24	The Becker Group Finances The Parallel Universe TM Multi-Player Interactive Video Game System, Business Wire, 1995, Calgary, Alberta, CA, print date 05/13/2009, 3 pages http://findarticles.com/p/articles/mi_m0EIN/is_1995_March_14/ai_16659321/	
		25	The Doom rendering engine, print date 09/21/2009, 3 pages http://everything2.com/title/The+Doom+rendering+engine?displaytype=printable	
		26	The Doom Wiki, Doom networking component, print date 09/22/2009, 3 pages http://doom.wiki.com/wiki/Doom_networking_component	
		27	The Realm Official Players Guide, 1997, pp. 1-160, Sierra Online, Inc., Coarsegold, CA, USA	
		28	The Shadow of Yserbius User Guide, 1993, pp. I-LXVI, Sierra Online, Inc., Coarsegold, CA, USA	
		29	AIREY et al., Towards Image Realism with Interactive Update Rates in Complex Virtual Building Environments, ACM SIGGRAPH Computer Graphics, 1990, pp. 41-50, 258, Vol. 24, No. 2, New York, NY, USA [doi: http://doi.acm.org/10.1145/91394.91416]	
4		30	AKIYAMA et al., Consideration on Three-Dimensional Visual Communication Systems, IEEE J. on Selected Areas in Communications, 1991, pp. 555-560, Vol. 9, No. 4, IEEE Computer Society Press, Los Alamitos, CA, USA	
	/K.N.	31	ALIAGA, Virtual and Real Object Collisions in a Merged Environment, VRST '94 Proc. of the conference on Virtual Reality software and Technology Singapore, Singapore, 1994, pp. 287-298, World Scientific Publishing Co., Inc., River Edge, NJ, USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	32	ALLUISI, Network and Virtual-World Technologies for Training: A Panel Presentation and Discussion, in WOODS et al. (ed.), Proceedings of the Human Factors Society 34th Annual Meeting, 1990, pp. 1405-1406, Vol. 2, The Human Factors Society, Santa Monica, CA, USA	
	33	AMARI et al., A Virtual Reality Application for Software Visualization, Proc. IEEE VRAIS '93, 1993, pp. 1-6, IEEE Computer Society Press, Los Alamitos, CA, USA	
	34	AMSELEM, A Window on Shared Virtual Environments, Presence, 1995, pp. 130-145, Vol. 4, No. 2, MIT Press, Cambridge, MA, USA	
	35	ANDERSON et al., Building Multiuser Interactive Multimedia Environments at MERL, IEEE MultiMedia, 1995, Vol. 2, No. 4, IEEE Computer Society Press, Los Alamitos, CA, USA, [doi: http://doi.ieeecomputersociety.org/10.1109/93.482298]	
	36	ANDREWS, Warfighting Training R & D in the Post Cold War Era—With A Special Emphasis on Synthetic Environments, Educational Technology,1994, pp. 36-40, Vol. XXXIII, No. 2, Brooks Air Force Base, Tex.: Armstrong Laboratory, Air Force Materiel Command	
	37	AOKI et al., Design and Control of Shared Conferencing Environments for Audio Telecommunication Using Individually Measured HRTFs, Presence, 1994, pp.60-72, Vol. 3, No. 1, MIT Press, Cambridge, MA, USA	
	38	APPINO et al., An Architecture for Virtual Worlds, Presence, 1992, pp. 1-17, Vol. 1, No. 1, MIT Press, Cambridge, MA, USA	
	39	BAILEY et al., Learning and Transfer of Spatial Knowledge in a Virtual Environment, Proc. of the Human Factors & Ergonomics Society 38th Annual Meeting, 1994, pp. 1158-1162,Vol. 2, Human Factors and Ergonomics Society, Santa Monica, CA, USA	
	40	BAJAJ et al., Distributed and Collaborative Synthetic Environments (Technical Report 95-059), Purdue University, Department of Computer Sciences, 1995, pp. 1-13	
000000000000000000000000000000000000000	41	BANGAY, Parallel implementation of a Virtual Reality System on a Transputer Architecture, Unpublished MS Thesis, 1993, pp. 1-117, Rhodes University, Grahamstown, South-Africa	
/K.N./	42	BANGAY, A Comparison of Virtual Reality Platforms, 1994, pp 1-16 http://www.cs.ru.ac.za/vrsig/techdocs/bangay/SDB04.ps.gz	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor	Leahy	, Dave		
Art Unit		2173		
Examiner Name	Nguye	en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N		43	BANISAR, Epic Statement on Digital Telephony Wire Tap Bill (EPIC Statement on FBI Wire Tap Bill), Telecom Digest, 1994, pp. 1-336, Vol. 14, lss. 351-400, http://massis.lcs.mit.edu/archives/back.issues/1994.volume.14/vol14.iss351-400							
000000000000000000000000000000000000000		44	BARG	DN, AIR WARRIOR Flight Manual, 1992, pp. 1-145, Charlottesville	e, VA, USA					
668.00000000000000000000000000000000000		45		RUS et al., Locales and Beacons: Efficient and Precise Support Fo VRAIS '96, 1996, pp. 204-213, IEEE Computer Society Press, Lo		ual Environments, Proc				
000000000000000000000000000000000000000		46		BATSON, ENFI Research, Computers and Composition, 1993, pp. 93-101, Vol. 10, No. 3, University of Illinois, Urbana-Champaign and Michigan Technological University						
000000000000000000000000000000000000000	,	47	BELL et al., The LEAP Intelligent Tutoring Architecture, Proc. 1993 Conf. on Intelligent Computer-Aided Training and Virtual Environ. Technol., 1993, pg. 218, Vol. II, NASA							
200000000000000000000000000000000000000	4	48	BENFORD, A Distributed Architecture for Large Collaborative Virtual Environments, Proc. IEEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 9/1-9/7, Digest Number 121, IEEE Computer Society Press, London, UK							
000000000000000000000000000000000000000		49		FORD et al., From Rooms to Cyberspace: Models of Interaction in Computers, 1993, pp. 217-237, Vol. 5 No. 2, Elsevier, London, Uk		er Spaces, Interacting				
\ /k	, (.N./	50		FORD et al., A Spatial Model of Interaction in Large Virtual Environ outer-Supported Work Milan, Italy, 1993, pp. 109-124, Kluwer Aca						
If you	wish	to ac	ld add	litional non-patent literature document citation information ព្	lease click the Add I	outton Add				
	EXAMINER SIGNATURE									
Exami	iner S	Signa	ture	/Cao Nguyen/	Date Considered	09/13/201)			
	*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									
Standar ⁴ Kind o	See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. I Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.									

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

Mation Disclosure Statement (IDS) Filed

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.

	Application Number		12406968
INFORMATION DISCLOSURE	Filing Date		2009-03-19
	First Named Inventor	Leahy	, Dave
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173
(Not for Submission under or of K 1.33)	Examiner Name	Nguyen, Cao H.	
	Attorney Docket Number		AP019CON3

U.S.PATENTS Remove											
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D)ate	of cited Document		Releva	,Columns,L ant Passage s Appear		
	1										
If you wish to add additional U.S. Patent citation information please click the Add button.											
U.S.PATENT APPLICATION PUBLICATIONS Remove											
Examiner Initial*			Kind Code ¹	Publication Date		Name of Patentee or Applicant of cited Document		Releva	,Columns,L ant Passage s Appear		
	1										
If you wis	h to add	d additional U.S. Publ	ished Ap	plication	citation	n information p	lease click the Add	d buttor	. Add		
				FOREIG	3N PAT	ENT DOCUM	ENTS		Remove		
Examiner Initial*				Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	e or	Pages,Colu where Rele Passages o Figures App	vant or Relevant	T5	
	1										
If you wis	h to ad	d additional Foreign P	atent Do	cument	citation	information pl	ease click the Add	button	Add		•
			NON	I-PATEN	NT LITE	RATURE DO	CUMENTS		Remove		
Examiner Initials*	No	Include name of the a (book, magazine, joul publisher, city and/or	nal, seria	al, symp	osium,	catalog, etc), o					T5

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	1	PAPATHOMAS et al., Synchronization in Virtual Worlds, in THALMANN et al. (eds.) Virtual Worlds and Multimedia, 1993, pp.135-152, Ch. 11, John Wiley & Sons, New York, NY, USA	
	2	PAUSCH, Software Development Environments and Architectures for Virtual Reality, Proc. of ACM SIGGRAPH '94: Course Notes 2 Developing Advanced Virtual Reality Applications, 1994, pp. 14.1-14.8, ACM Press, New York, NY, USA	
000000000000000000000000000000000000000	3	PETERSON, The Island in your Computer, Dragon Magazine, Vol. XII, No. 7, Iss. 128, 1987, pp. 69-70 & 73, print date 3/25/2009, 4 pages, http://archive.legendsofkesmai.com/iok/miscellaneous/articles/island_in_your_computer.htm	
Фесосорового положения	4	PIANTANIDA et al., Studies of the Field-Of-View/Resolution Tradeoff in Virtual-Reality Systems, in Proc. SPIE: ROGOWITZ (ed.) Human Vis. Proc. Digital Display III, 1992, pp. 448-456, Vol. 1666, SPIE Press, Bellingham, Washington, USA [doi: http://10.1117/12.135990]	
MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MANAGEMENT (MA	5	PIMENTEL, System Architecture Issues Related to Multiple-User VR Systems: Teaching Your System to Share, Proc. 3rd Annual Virtual Reality Conference and Exhibition on VR Becomes A Business, 1993, pp. 125-133, Meckler Publishing, Westport, CT, USA	
000000000000000000000000000000000000000	6	POLIS et al., Automating the Construction of Large-Scale Virtual Worlds, Computer, 1995, pp. 57-65, Vol. 28, No. 7, IEEE Computer Society, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/2.391042]	
000000000000000000000000000000000000000	7	PRATT, A Software Architecture for the Construction and Management of Real-Time Virtual Worlds, Naval Postgraduate School Dissertation, 1993, pp. 1-147, Monterey, CA, USA	
***************************************	8	PRATT et al., Insertion of an Articulated Human into a Networked Virtual Environment, Proc. 5th Ann. Conf. on Al, Simulation and Planning in High Autonomy Systems, 1994, pp.84-90, IEEE Computer Society Press, Los Alamitos, CA, USA	
000000000000000000000000000000000000000	9	PRATT et al., NPSNET: Four User Interface Paradigms for Entity Control in a Virtual World, J. of Intelligent Systems, 1995, pp. 89-109, Vol. 5, Nos. 2-4, Freund Publishing House Ltd., London, England, UK	
000000000000000000000000000000000000000	10	PULKKA, Spatial Culling of interpersonal Communication Within Large-Scale Multi-User Virtual Environments, MS Thesis in Computer Science and Engineering at the University of Washington, 1995, print date 5/14/2009, 50 pages, http://www.hitl.washington.edu/publications/pulkka/1.html	
/K.N.	11	PULLEN et al., Networking Technology and DIS, Proc. of the IEEE, 1995, pp. 1156-1167, Vol. 83, No. 8, IEEE, New York, NY, USA [doi: http://10.1109/5.400455]	

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.	.N./	12	QUINLAN, Efficient Distance Computation between Non-Convex Objects, IEEE Int. Conference on Robotics and Automation, 1994, pp. 3324-3329, Vol. 2, IEEE Computer Society Press, Los Alamitos, CA, USA	
90000000000000000000000000000000000000		13	REA, Innovative Network Structure Displays, Virtual Reality World, 1994, pp. 18-22, Vol. 2, No. 1, Meckler Corporation, Westport, CT, USA	
000000000000000000000000000000000000000		14	REA et al., Advanced Interface Into Network Management Workstations, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 7/1-7/3, IEE, London, UK	
***************************************		15	REED, Virtual Reality For Real-Time Performance Analysis and Display, Proc. of the Supercomputing '95, 1995, pp. 1-3, ACM Press, New York, NY, USA	
000000000000000000000000000000000000000		16	REGAN et al., Priority Rendering with a Virtual Reality Address Recalculation Pipeline, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 155-162, ACM Press, New York, NY, USA	
80000000000000000000000000000000000000		17	REYNDERS et al., POOMA: A Framework for Scientific Simulation on Parallel Architectures, First Int. Workshop on High-Level Programming Models and Supportive Environments, 1996, pp. 41-49, IEEE Computer Society Press, Los Alamitos, CA, USA	
000000000000000000000000000000000000000		18	REZZONICO et al., Consistent Grasping in Virtual Environments base on the Interactive Grasping Automat, in in GOBEL et al. (eds.), Virtual Environments '95 Selected papers of the Eurographics Workshops in Barcelona, Spain and Monte Carlo, 1993, Monaco, 1995, 1995, pp. 107-118, Springer-Verlag London, UK	
000000000000000000000000000000000000000		19	RHEINGOLD, Multi-User Dungeons and Alternate Identities, The Virtual Community Homesteading on the Electronic Frontier, 1993, pp. 145-175, Addison-Wesley Publishing Co., New York, NY, USA	
000000000000000000000000000000000000000		20	RIVERA, Proyecto Xochicalco: A Networked Virtual Environments System Featuring an Ancient Aztec/Mayan Ball Game Played on the Replicated Virtual Site of Xochicalco, Mexico, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 192-193, ACM Press, New York, NY, USA	
		21	ROBINETT, Interactivity and Individual Viewpoint in Shared Virtual Worlds: The Big Screen vs. Networked Personal Displays, Computer Graphics, 1994, pp. 127-130, Vol. 8, No. 2, AMC SIGGRAPH, Orlando, FL, USA	
/K	(.N./	22	SHEKTER et al., The NETREK Newbie Manual, 1995, print date 11/03/2009, 42 pages http://www.netrek.org/about/2005-newbie.html	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K	22.	23	SINGH et al., BrickNet: Sharing Object Behaviors on the Net, Proc. IEEE VRAIS '95, 1995, pp. 19-25, IEEE Computer Society Washington, D.C., USA	
	15000000000000000000000000000000000000	24	SINGHAL et al., Using a Position History-Based Protocol for Distributed Object Visualization, Technical Report STAN—CS-TR-94-1505, Computer Science Department, Stanford University, Stanford, California, USA	
	100000000000000000000000000000000000000	25	SLATER, An Algorithm to Support 3D Interaction on Relatively Low Performance Graphics Systems, Comp. & Graphics, 1992, pp. 311-315, Vol. 16, No. 3, Pergamon Press Ltd., Great Britain, UK	
)0000000000000000000000000000000000000	26	SLATER et al., Representations Systems, Perceptual Position, and Presence in Immersive Virtual Environments, Presence, 19932, pp. 221-233, Vol. 2, No. 3, MIT Press, Cambridge, MA, USA	
	000000000000000000000000000000000000000	27	SLATOR et al., From Dungeons to Classrooms: The Evolution of MUDs as Learning Environments, Studies in Computational Intelligence, 2007, pp. 119-159, Vol. 62, Springer-Verlag, Berlin, Germany	
		28	SMETS et al., Visual Resolution and Spatial Performance: The trade-off between resolution and interactivity, Proc. IEEE VRAIS '95, 1995, pp. 67-73, IEEE Computer Society Washington, D.C., USA	
		29	SNOSWELL, Overview of cyberterm, a cyberspace protocol implementation, InterNet article, 1992 http://www.ibiblio.org/pub/academic/computer-science/virtual-reality/papers/Snoswell.Cyberterm	
		30	SOMMERER et al., A-Volve A Real-Time Interactive Environment, Proc. of ACM SIGGRAPH '94: Computer Graphics, 1994, pp. 172-173, ACM Press, New York, NY, USA	
		31	STANIC, Surfs Up, SplattBlog, 1995, pp. 1-7, lss. 2, http://www.splatt.com.au/blog/2004/09/14/surfs-up-issue-2from-a-simpler-time/	
		32	STRANGER, Networked Virtual Reality Applications, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 1/1-1/4, IEE, London, UK	
/K	.N./	33	STYTZ, Distributed Virtual Environments, IEEE Comp. Graphics and Applications, 1995, pp. 19-31, Vol. 16, Iss. 3, IEEE Computer Society Press Los Alamitos, CA, USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	34	SUGAWARA et al., A study of shared virtual space service – a study of system architecture, IEICE Journal, pp. 25-29, Vol. 94, No. 486, Japan (English Abstract)	
	35	TAYLOR et al., Virtual Reality: A Distributed Perspective, Virtual Reality, 1995, pp. 91-94, Vol. 1, No. 2, Springer London, UK	
	36	TAYLOR et al., Identifying and Reducing Critical Lag in Finite Element Simulations, IEEE Comp. Graphics and Applications, 1996, pp. 67-71, Vol. 16, Iss. 4, IEEE Computer Society Press Los Alamitos, CA, USA	
***************************************	37	TELLER, Visibility Computations in Densely Occluded Polyhedral Environments, Ph.D. thesis, Computer Science Division (EECS), 1992, pp. 1-151, University of California, Berkley, CA, USA	
***************************************	38	TELLER et al., Visibility Preprocessing For Interactive Walkthroughs, Proc. of ACM SIGGRAPH ' 91 Computer Graphics, 1991, pp. 61–69, Vol. 25, No. 4, ACM Press, New York, NY, USA	
***************************************	39	THOMPSON, The aMazing History of Maze – It's a Small World After-all, http://www.digibarn.com/collections/presentations/maze-war/The-aMazing-History-of-Maze.ppt, print date 10/15/2009, 35 pages	
000000000000000000000000000000000000000	40	TORGUET et al., Multi-User Interactions In The Context of Concurrent Virtual World Modelling, in GOBEL et al. (eds.), Virtual Environments and Scientific Visualization '96, Proc. of the Eurographics Workshops in Monte Carlo, Monaco and in Prague, Czech Republic, 1996, pp. 121-130, Springer-Verlag London, UK	
000000000000000000000000000000000000000	41	TRIAS et al., Decision Networks for Integrating the Behaviors of Virtual Agents and Avatars, Proc. VRAIS '96, 1996, pp. 156-162, IEEE Computer Society Washington, DC, USA	
000000000000000000000000000000000000000	42	UNITED STATES CONGRESS SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION SUBCOMMITTEE ON SCIENCE, TECHNOLOGY AND SPACE, New Developments in Computer Technology: Virtual Reality: Hearing Before the Subcommittee on Science, Technology, and Space of the Committee on Commerce, Science, and Transportation, 1992, pp. 102-553, Washington, D.C., USA: U.S.G.P.O., Supt. Of Docs., Congressional Sales Office	
***************************************	43	WALLIS, Playing Catch Up: Habitat's Chip Morningstar and Randy Farmer, Gamasutra News, 2006, print date 3/20/2009, 4 pages, http://www.gamasutra.com/php-bin/news_index.php?story=11232	
/K.N./	44	WENZEL, Localization in Virtual Acoustic Displays, Presence, 1992, pp. 80-107, Vol. 1, No. 1, MIT Press, Cambridge, MA, USA	

Application Number		12406968			
Filing Date		2009-03-19			
First Named Inventor Leahy		, Dave			
Art Unit		2173			
Examiner Name Nguye		en, Cao H.			
Attorney Docket Number		AP019CON3			

/K	.N./	45	WES 213-2	ty Systems, 1993, pp.										
		YAKAI, Habitat: A Look at the Future of Online Games, Compute!, 1986, pp. 32-37, Vol. 8, No. 1, Iss. 77, http://www.atarimagazines.com/compute/issue77/habitat.php												
		47	YOUN et al., Realtime Collision Detection for Virtual Reality Applications, Proc. VRAIS '93, 1993, pp. 415-421, IEEE Computer Society, Washington, DC, USA [doi: http://doi.ieeecomputersociety.org/10.1109/VRAIS.1993.380750]											
		ZYDA, Networking Large-Scale Virtual Environments, Computer Animation, 1996, pp. 1-4, IEEE Computer Society Washington, DC, USA [doi: http://doi.ieeecomputersociety.org/10.1109/CA.1996.540480]												
		49	ZYDA, Networked Virtual Environments, Proc. VRAIS '95, 1995, pp. 230-231, IEEE Computer Society, Washington, DC, USA											
1	ZYDA et al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4, No. 1													
If yo	u wis	h to a	dd add	ditional non-patent literature document citation information p	olease click the Add I	outton Add								
				EXAMINER SIGNATURE										
Exa	miner	Signa	ture	/Cao Nguyen/	Date Considered	09/13/2010								
	*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.													
Stand 4 Kind	lard Si	Γ.3). ³ F cum <mark>en</mark> t	or Japa by the	anese patent documents, the indication of the year of the reign of the Emp appropriate symbols as indicated on the document under WIPO Standard	eror must precede the ser	See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if english language translation is attached.								

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

Mation Disclosure Statement (IDS) Filed

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.

	Application Number		12406968	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Filing Date		2009-03-19	
	First Named Inventor	Leahy	ny, Dave	
	Art Unit		2173	
(Not for Submission under 57 Of K 1.55)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Numb	er	AP019CON3	

U.S.PATENTS Remove										
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue D)ate	of cited Document		Releva	Columns,Lines wher Int Passages or Rele S Appear	
	1									
If you wisl	h to add	d additional U.S. Pate	nt citatio	n inform	ation pl	ease click the	Add button.		Add	
U.S.PATENT APPLICATION PUBLICATIONS Remove										
Examiner Initial*	Cite N	o Publication Number	Kind Code ¹	Publication Date		Name of Patentee or Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Releva Figures Appear		
	1									
If you wisl	h to add	d additional U.S. Publi	shed Ap	plication	citation	n information p	lease click the Add	d button	Add	
				FOREIC	3N PAT	ENT DOCUM	ENTS		Remove	
Examiner Initial*				Country K Code ² i C		Publication Date	Name of Patentee or Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevan Figures Appear	T5
	1									
If you wisl	h to ad	d additional Foreign P	atent Do	cument	citation	information pl	ease click the Add	button	Add	
			NON	I-PATEN	NT LITE	RATURE DO	CUMENTS		Remove	
Examiner Initials*	No	Include name of the a (book, magazine, jour publisher, city and/or	nal, seria	al, symp	osium,	catalog, etc), c				T5

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.I	N./	1	BENFORD et al., Managing Mutual Awareness in Collaborative Virtual Environments, Proc. VRST '94 Singapore, 1994, pp. 223-236, ACM Press, New York, NY, USA	
***************************************		2	BENFORD et al., Collaborative Virtual Environments on the Internet, Connexions: The Interoperability Report, 1995, pp. 18-25, Vol. 9, No. 10, Interop Company, Foster City, CA, USA	
000000000000000000000000000000000000000		3	BERGER et al., NVR: A System for Networked Virtual Reality, Proc. of the 1994 IEEE Conference on Multimedia Computing Systems, 1994, pp. 37-44, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://10.1109/MMCS.1994.292431]	
000000000000000000000000000000000000000		4	BERGLUND et al., Amaze: A Multiplayer Computer Game, IEEE Software, 1985, pp. 30-39, Vol. 3, No. 2, IEEE Computer Society Press, Los Alamitos, CA, USA	
000000000000000000000000000000000000000		5	BIBLE et al., Using Spread-Spectrum Ranging Techniques for Position Tracking in a Virtual Environment, Proceedings of the Network Realities '95, 1995, pp. 1-15, Naval Postgraduate School	
000000000000000000000000000000000000000		6	BLADE, The Present and the Future for the IJVR, Int. J. Virtual Reality, 1995, pg. 1, Vol. 1, No. 1, IPI Press, Colorado Springs, CO, USA	
***************************************		7	BLAU et al., Networked Virtual Environments, Proc. ACM SIGGRAPH Special Issue on Interactive 3D Graphics, 1992, pp. 157-160, ACM Press, New York, NY, USA	
***************************************		8	BOMAN, Commercial Applications of Virtual Environments, Proceedings of the WESCON/94: Idea/Microelectronics, pp. 82-94, IEEE Computer Society Press, Los Alamitos, CA, USA	
***************************************		9	BORNING et al., Two Approaches to Casual Interaction Over Computer and Video Networks, Proc. of SIGCHI '91 Conference On Human Factors In Computing Systems, 1991, pp. 13-19, ACM, New York, NY, USA	
888888888888888888888888888888888888888		10	BRALICK JR. et al., Using a Multi-User Dialogue System to Support Software Engineering Distance Education, Proc. of the 7th SEI CSEE Conference on Software Engineering Education, 1994, pp. 565 – 582, Springer-Verlag, London, UK	
/K.I	/ N./	11	BRICKEN et al., VEOS: The Virtual Environment Operating Shell, in BARFIELD et al. (ed.), Virtual Environments and Advanced Interface Design, 1995, pp. 102-142, Ch. 4, Oxford University Press, New York, NY, USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968		
Filing Date		2009-03-19		
First Named Inventor Leahy		, Dave		
Art Unit		2173		
Examiner Name Nguye		en, Cao H.		
Attorney Docket Number		AP019CON3		

/K.N./	12	BROLL, Interacting in Distributed Collaborative Virtual Environments, Proc. IEEE VRAIS '95, 1995, pp. 148-155, IEEE Computer Society Press, Washington, D.C., USA	
	13	BROLL et al., Bringing Worlds Together: Adding Multi-User Support to VRML, VRML '95, 1995, pp. 87-94, ACM, New York, NY, USA	
	14	BRUTZMAN et al., Internetwork Infrastructure Requirements for Virtual Environments, Proc. VRML '95: Symposium on the Virtual Reality Modeling Language, 1995, pp. 95-104, ACM, New York, NY, USA	
000000000000000000000000000000000000000	15	BRYSON, Approaches to the Successful Design and Implementation of VR Applications, Proc. of the ACM SIGGRAPH, 1994, pp. 9:1-9:11, ACM, New York, NY, USA	
000000000000000000000000000000000000000	16	CALIGARI CORP., Get Your 3D Graphics Stuff, Virtual Reality Special Report, 1995, pp. 40-41, Vol. 2, No. 1, Miller Freeman Inc., San Francisco, CA, USA	
000000000000000000000000000000000000000	17	CALVIN et al., The Simnet Virtual World Architecture, Proc. IEEE VRAIS '93: Virtual Reality Ann. Int. Symp. Seattle, WA, 1993, pp. 450–455, IEEE Computer Society Press, Los Alamitos, CA, USA, [doi: 10.1109/VRAIS.1993.380745]	
000000000000000000000000000000000000000	18	CARLSSON et al., DIVE - A Multi-User Virtual Reality System, Proc. IEEE VRAIS '93, 1993, pp 394-400, IEEE Computer Society Press, Los Alamitos, CA, USA	
000000000000000000000000000000000000000	19	CHAPIN et al., Virtual environment display for 3D audio room simulation, Proc. Stereoscopic Displays and Applications III, 1992, pp. 256-267, Vol. 1669, SPIE Press, Bellingham, Washington, USA [DOI: 10.1117/12.60436]	
000000000000000000000000000000000000000	20	CHILD, Distributed Virtual Reality, Proc. of the IEE Colloquium on 'Distributed Virtual Reality', 1993, pp. 5/1-5/4, IEE, London, UK	
*	21	CLARKE-WILLSON, The Design of Virtual Environments – Value Added Entertainment, ACM SIGGRAPH Computer Graphics, 1994, pp. 102-104, Vol. 28, No. 2, ACM Press, New York, NY, USA	
/K.N./	22	CODELLA et al., Interactive Simulation in a Multi-Person Virtual World, Proc. of SIGCHI '92 Conference On Human Factors In Computing Systems, 1992, pp. 329-334, ACM, New York, NY, USA	

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy	, Dave
Art Unit		2173
Examiner Name	Nguyen, Cao H.	
Attorney Docket Number		AP019CON3

/K.N./	23	CODELLA et al., A Toolkit for Developing Multi-User, Distributed Virtual Environments, Proc. IEEE VRAIS '93, 1993, pp. 401-407, IEEE Service Center, Piscataway, NJ, USA	
000000000000000000000000000000000000000	24	COHEN et al., I-COLLIDE: An Interactive and Exact Collision Detection System for Large-Scale Environments, SI3D '95: Proc. 1995 Symp. Interactive 3D graphics, 1995, pp. 189-196, ACM Press, New York, NY, USA	
000000000000000000000000000000000000000	25	CONN, Virtual Environments and Interactivity: Windows to the Future, SIGGRAPH '89 Panel Proc., 1989, pp. 7-18, ACM Press, New York, NY, USA	
000000000000000000000000000000000000000	26	COPILEVITZ, Software Firm Creates a Monster Hit Via the 'Information Superhighway, The Dallas Morning News, 1994, print date 09/02/2009, 4 pages, http://www.johnromero.com/lee_killough/articles/morningnews.shtml	
	27	CRUTCHER et al., Managing Networks Through a Virtual World, IEEE Parallel & Distributed Technology, 1995, pp. 4-13, Vol. 3, No. 2, IEEE Computer Society Press, Los Alamitos, CA, USA [doi: http://doi.ieeecomputersociety.org/10.1109/88.393226]	
000000000000000000000000000000000000000	28	DARKEN et al., The Bridge between developers and virtual environments: A robust virtual environment system architecture, Proc. Stereoscopic Displays and Virtual Reality Systems, 1995, pp. 234-240, Vol. 2409, SPIE Press, Bellingham, Washington, USA [doi: http://10.1117/12.205866]	
000000000000000000000000000000000000000	29	DELANO et al., Network Software Architectures for Real-Time Massively-Multiplayer Online Games, MS Thesis, 2005, pp. 1-99, McGill University, Montreal Quebec, CA	
	30	DICKENS, Distributed Representation Issues for Distributed Virtual Environments, Proc. of the Twenty-Fifth Annual Summer Computer Simulation Conference, 1993, pp. 894-899, The Society for Computer Simulation, San Diego, CA, USA	
	31	ELLIS et al., Visual Enhancements for Perspective Displays: Perspective Parameters, Proceedings of the International Conference on Systems Man and Cybernetics IEEE Catalog #85CH22533, 1985, pp. 815-818, IEEE Systems, Man, and Cybernetics Society, New York, NY, USA	
	32	FAHLEN et al., A Space Based Model for User Interaction in Shared Synthetic Environments, INTERCHI '93, 1993, pp. 43-48, ACM Press, New York, NY USA	
/K.N./	33	FAIGLE et al., Integrating Virtual Environments with High Performance Computing, Proc. IEEE VRAIS '93, 1993, pp. 62-68, IEEE Service Center, Piscataway, NJ	

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor	Leahy, Dave	
Art Unit		2173
Examiner Name	Nguyen, Cao H.	
Attorney Docket Number		AP019CON3

/k	(.N./	34	FELL, The Unofficial DOOM Specs Release 1.666, 1994, print date 09/22/2009, 64 pages http://www.aiforge.net/test/wadview/dmspec16.txt	
) 000000000000000000000000000000000000	35	FOLEY et al. (ed.), Viewing in 3D, Computer Graphics Principles and Practice Second Edition, 1990, pp. 229-283, Ch. 6, Addison-Wesley Systems Programming Series Consulting editors: IBM Editorial, USA	
	000000000000000000000000000000000000000	36	FOLEY et al. (ed.), Visible-Surface determination, Computer Graphics Principles and Practice Second Edition, 1990, pp. 649-720, Ch. 15, Addison-Wesley Systems Programming Series Consulting editors: IBM Editorial, USA	
	200000000000000000000000000000000000000	37	FRECON et al., DIVE-A scaleable Network Architecture for Distributed Virtual Environments, Distrib. Syst. Engng., 1998, pp. 91-100, Vol. 5, No. 3, The British Computer Society, The Institution of Electrical Engineers and IOP Publishing Ltd, UK	
	000000000000000000000000000000000000000	38	FUKUDA et al., Hypermedia Personal Computer Communication System: Fujitsu Habitat, FUJITSU Sci. Tech. J., 1990, pp.197-206, Vol. 26, No. 3, Japan	
	000000000000000000000000000000000000000	39	FUNKHOUSER, Network Services for Multi-User Virtual Environments, IEEE Network Realities, 1995, pp. 1-8, Boston, MA, USA	
	<u> </u>	40	FUNKHOUSER, RING: A Client-Server System for Multi-User Virtual Environments, Proc. ACM SIGGRAPH Special Issue on 1995 Symposium on Interactive 3D graphics, Monterey, CA, USA, 1995, pp. 85-92, ACM Press, New York, NY, USA	
	000000000000000000000000000000000000000	41	FUNKHOUSER et al., Management of Large Amounts of Data in Interactive Building Walkthroughs, SI3D '92 Proc. 1992 symposium on Interactive 3D graphics, pp. 11–20, ACM Press, New York, NY, USA [doi: 10.1145/147156.147158]	
	000000000000000000000000000000000000000	42	GOBBETTI et al., VB2: An Architecture for Interaction in Synthetic Worlds, Proc. of the UIST '93 The Sixth Annual Symposium on User Interface Software and Technology, 1993, pp. 167-178, ACM Press, New York, NY USA	
	200000000000000000000000000000000000000	43	GOMES, Now Playing Everywhere Netrek, an addictive fantasy game played on the Internet network, provides a preview of the not-so-distant future of communications and home entertainment, San Jose Mercury News Business Monday, 1992, May 24, pp. 1D-2D	
,	V /K.N./	44	GOSSWEILER et al., An Introductory Tutorial for Developing Multi-User Virtual Environments, Presence, 1994, pp. 255-264, Vol. 3, No. 4, MIT Press, Cambridge, MA, USA	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

/K.N./	45	Com	ENE et al., Hierarchical Z-Buffer Visibility, ACM SIGGRAPH '93 P puter graphics and interactive techniques, 1993, pp. 231-238, New http://doi.acm.org/10.1145/166117.166147]		annual conference on		
000000000000000000000000000000000000000	46		ENHALGH et al., MASSIVE: A Collaborative Virtual Environment puter-Human Interaction, pp. 239-261, Vol. 2, No. 3, ACM Press, I		CM Transactions on		
000000000000000000000000000000000000000	GREENHALGH et al., MASSIVE: a Distributed Virtual Reality System Incorporating Spatial Trading, Proc. of the 15th ICDCS '95, 1995, pp. 27-34, IEEE Computer Society Press, Washington, D.C., USA						
000000000000000000000000000000000000000	GRINSTEIN et al., Virtual Environment Architecture for Rapid Application Development, Proc. of the 1993 Conf. on Intelligent Computer-Aided Training and Virtual Environment Technology, 1993, pp. 75-82, NASA						
	HAHN et al., An Integrated Virtual Environment System, Presence, pp. 353-360, Vol. 2 No. 4, MIT Press, Cambridge MA, USA						
/K.N.	50		KBERT et al., Multiresolution Modeling for Fast Rendering, Proc. o adian Information Processing Society, Mississauga, Ontario, CA	of Graphics Interface '9	4, 1994, pp. 43-50,		
If you wis	h to a	dd add	ditional non-patent literature document citation information	olease click the Add b	outton Add		
			EXAMINER SIGNATURE				
Examiner	Signa	ature	/Cao Nguyen/	Date Considered	09/13/2010		
	*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						
Standard S ⁻¹ Kind of do	See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Is kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.						

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

Mation Disclosure Statement (IDS) Filed

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.

	Application Number		12406968	
	Filing Date		2009-03-19	
INFORMATION DISCLOSURE	First Named Inventor	Leahy	, Dave	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2173	
(Notice of Submission and or or it not)	Examiner Name	Nguye	en, Cao H.	
	Attorney Docket Number		AP019CON3	

						U.S.I	PATENTS			Remove		
Examiner Initial*	Cite No	Р	atent Number	Kind Code ¹	Issue D)ate	of cited Document Relevan		s,Columns,Lines where ant Passages or Relev es Appear			
	1											
If you wisl	n to ac	dd a	dditional U.S. Pater	t citatio	n inform	ation pl	ease click the	Add button.		Add		
U.S.PATENT APPLICATION PUBLICATIONS Remove												
Examiner Initial*	Cite I	No	Publication Number	Kind Code ¹	Publica Date	ition	of cited Document		Pages,Columns,Lines where Relevant Passages or Relevan Figures Appear			
/K.N./	1		20020002585	A1	2002-01	I-03	MATSUDA		o			
If you wisl	h to ac	dd a	dditional U.S. Publi	shed Ap	plication	citation	n information p	lease click the Ado	d button	Add		
					FOREIG	GN PAT	ENT DOCUM	ENTS		Remove		
Examiner Initial*	Examiner Cite Foreign Document Country Kind Code² i Code⁴			Kind Code ⁴	Publication Date	Name of Patented Applicant of cited Document	e or F	Pages,Colum vhere Releva Passages or I Figures Appe	int Relevant	T5		
	1											
If you wisl	h to ac	l dd a	ا dditional Foreign Pa	atent Do	cument	L citation	information pl	ease click the Add	button	Add		<u> </u>
				NON	I-PATE	NT LITE	RATURE DO	CUMENTS		Remove		
Examiner Initials*	Examiner Cite Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item									T5		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12406968
Filing Date		2009-03-19
First Named Inventor Leahy		, Dave
Art Unit		2173
Examiner Name Nguye		en, Cao H.
Attorney Docket Number		AP019CON3

/K.N./	1	ZYDA et al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4, No. 1					
/K.N./	2	CHEN et al., The Virtual Sailor: An Implementation of Interactive Human Body Modeling, Proc. IEEE VRAIS '93, 1993, pp. 431-435, IEEE Service Center					
/K.N./	3	Excerpt from Harry Newton, Newton's Telecom Dictionary, 686 (18th ed. 2002) (defining the phrase "source code"). p. 686					
If you wis	h to ac	dd add	litional non-patent literature document citation information p	lease click the Add b	outton Add	•	
			EXAMINER SIGNATURE				
Examiner	Signa	ture	/Cao Nguyen/	Date Considered	09/13/20	10	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.							

Application Number	Application/Control No. 12/406,968		Applicant(s)/Patent under Reexamination LEAHY ET AL.		
	,				
Document Code - DISQ		Internal D	ocument – DC	NOT MAIL	

TERMINAL DISCLAIMER	☐ APPROVED	⊠ DISAPPROVED
Date Filed : 9/20/10	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:

ANDRE ROBINSON

CLARITY IS REQUIRED. NAME OF OWNER AND THE PATENT NUMBER WHICH IS THE BASIS FOR THE DBLE. PAT. REJ. ARE UNREADABLE/UNCLEAR.

U.S. Patent and Trademark Office

Doc Code: PET.POA.WDRW

Document Description: Petition to withdraw attorney or agent (SB83)

PTO/SB/83 (11-08) Approved for use through 11/30/2011. OMB 0651-0035

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.

REQUEST FOR WITHDRAWAL AS ATTORNEY OR AGENT AND CHANGE OF **CORRESPONDENCE ADDRESS**

<u>'</u>	
Application Number	12/406,968
Filing Date	March 19, 2009
First Named Inventor	Dave Leahy
Art Unit	2173
Examiner Name	NGUYEN, CAO H
Attorney Docket Number	AP019CON3

To: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450								
Please withdraw me as attorney or agent for the above identified patent application, and								
all	all the practitioners of record;							
th	the practitioners (with registration numbers) of record listed on the attached paper(s); or							
✓ the	e practitioners of record asso	ciated with Customer Number:	35070					
NOTE: The Customer		should only be marked when t	he practitioners were appointe	d using the listed				
The rea	son(s) for this request are the	ose described in 37 CFR :		_				
1	0.40(b)(1)	10.40(b)(2)	10.40(b)(3)	10.40(b)(4)				
1	0.40(c)(1)(i)	10.40(c)(1)(ii)	10.40(c)(1)(iii)	10.40(c)(1)(iv)				
1	0.40(c)(1)(v)	10.40(c)(1)(vi)	10.40(c)(2)	10.40(c)(3)				
1	0.40(c)(4)	10.40(c)(5)	10.40(c)(6) Please explain below	N:				
employ	ed by the current owner. I	cation is not and has never b My client has instructed me r ver of attorney form in this ca	not to perform any additiona	al work on the patent				
		Certifications						
Check ea be approv		tually correct. WARNING: I	f a box is left unchecked, the	e request will likely not				
1. ractition	I/We have given reasonab er(s) intend to withdraw fro	le notice to the client, prior to om employment.	o the expiration of the respo	onse period, that the				
2. I/We have delivered to the client or a duly authorized representative of the client all papers and property (including funds) to which the client is entitled.								
3.								
Please pr	rovide an explanation, if ne	ecessary:						
	riease provide an explanation, il flecessary:							

[Page 1 of 2]
This collection of information is required by 37 CFR 1.36. 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. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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.

REQUEST FOR WITHDRAWAL AS ATTORNEY OR AGENT AND CHANGE OF CORRESPONDENCE ADDRESS Complete the following section only when the correspondence address will change. Changes of address will only be accepted to an inventor or an assignee that has properly made itself of record pursuant to 37 CFR 3.71. Change the correspondence address and direct all future correspondence to: The address of the inventor or assignee associated with Customer Number: . OR Inventor or Worlds.com, Inc. Assignee name Address 11 Royal Road Brookline, MA 02445 City Brokline State MA Zip 02445 Country USA Telephone 617-803-0004 Email thom@worlds.com I am authorized to sign on behalf of myself and all withdrawing practitioners. Signature /Anatoly S. Weiser/ Registration No. 43,229 Name Anatoly S. Weiser Address 3525 Del Mar Heights Rd., #295 State CA City San Diego Zip 92130 Country USA

[Page 2 of 2]

Telephone No. 858-720-9431

Date

1/5/2010

NOTE: Withdrawal is effective when approved rather than when received.

This collection of information is required by 37 CFR 1.36. 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. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection 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.

Electronic Acl	knowledgement Receipt
EFS ID:	9169021
Application Number:	12406968
International Application Number:	
Confirmation Number:	6412
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE
First Named Inventor/Applicant Name:	Dave Leahy
Customer Number:	35070
Filer:	Anatoly Weiser.
Filer Authorized By:	
Attorney Docket Number:	AP019CON3
Receipt Date:	05-JAN-2011
Filing Date:	19-MAR-2009
Time Stamp:	14:46:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no		
File Listing:			
		 /-	 _

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Petition to withdraw attorney or agent ChangeOfCorrespondenceAdo		269900	no	3
'	(SB83)	ress.pdf	0f802dc41ad28ea9dcd0612acc077ef674f6 701f		

Warnings:

Information:

269900

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/26 (07-09)

Approved for use through 07/31/2012. 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 displays a valid OMB control number.

TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING **REJECTION OVER A "PRIOR" PATENT**

Docket Number (Optional)

AP019CON3

pplication of: Dave Leahy et al. ication No.: 12/406,968

إناتر

Filed: 3/19/2009

PRADE

For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE

, of The owner*, Worlds, Inc. 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term prior patent No. 7,181,690 as the term of said prior patent is defined in 35 U.S.C. 154 and 173, and as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:

expires for failure to pay a maintenance fee;

is held unenforceable;

is found invalid by a court of competent jurisdiction;

is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;

has all claims canceled by a reexamination certificate;

is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. 🗹 For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on in formation and belief are belie ved to be true; a nd further that these statements were made with the knowledge that willful false statements and the like so made are punis hable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such statements may jeopardize the validity of the application or any patent issued thereon.

. L	The undersigned is a	n attorney or agent of record. Reg. No	
		/ hom Kid	1/11/11
		Signature	Date

Typed or printed name 617 725 8900

Thom Kidrin

Telephone Number

Terminal disclaimer fee under 37 CFR 1.20(d) included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. 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. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Doc Code: JRAN.LET

<u> </u>	Application Number	12/406,96	<u>iformation unless it displavs a valid OMB contro</u> 58
TRANSMITTAL	Filing Date	3/19/2009)
r EMPM	First Named Inventor	Dave Lea	hy et al.
	Art Unit	2173	
MARKO (to be used for all correspondence after initial	Examiner Name	Nguyen; I	Kevin
(to be used for all correspondence after initia	Attorney Docket Num	ber AP019CC	DN3
	ENCLOSURES (Che	ck all that appl	v)
<u> </u>	<u> </u>	ok an that appl	After Allowance Communication
Fee Transmittal Form	Dṛawing(s)		
Fee Attached	Licensing-related Paper	s	Appeal Communication to Boa of Appeals and Interferences
[Petition		Appeal Communication to TC
Amendment/Reply	Petition to Convert to a		(Appeal Notice, Brief, Reply Brief
After Final	Provisional Application Power of Attorney, Revo	ocation	Proprietary Information
Affidavits/declaration(s)	Change of Corresponde		Status Letter
Extension of Time Request	Terminal Disclaimer		Other Enclosure(s) (please Ide below):
Express Abandonment Request	Request for Refund		
Information Disclosure Statement	CD, Number of CD(s)		
	Landscape Table	on CD	
Certified Copy of Priority Document(s)	Remarks		
Reply to Missing Parts/ Incomplete Application			
Reply to Missing Parts			
under 37 CFR 1.52 or 1.53			
SIGNA Firm Name	TURE OF APPLICANT, A	ITORNEY, C	OR AGENT
Worlds Inc.			
Signature A A A	- leb-		
Printed name	7 000		<u> </u>
Thom Kidrin Date 1/11/11		Reg. No.	T
			<u> </u>
C	ERTIFICATE OF TRANSM	ISSION/MA	ILING

This collection of information is required by 37 CFR 1.5. 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 2 hours 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.

Thom Kidrin)

Typed or printed name

Date

1/11/11

Approved for use through 11/30/2011. OMB 0651-0035 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.

POWER OF ATTORNEY OR **REVOCATION OF POWER OF ATTORNEY** WITH A NEW POWER OF ATTORNEY AND

CHANGE OF CORRESPONDENCE ADDRESS

Application Number 12/406,968 Filing Date 03/19/2009 **First Named Inventor** Dave Leahy SYSTEM AND METHOD FOR ENABLING USERS TO INT Title Art Unit 2173 **Examiner Name** CAO H. NGUYEN WORLDS 003 **Attorney Docket Number**

I hereby revoke a	hereby revoke all previous powers of attorney given in the above-identified application.						
A Power of A	ttorney is submitted herewith.	_					
Number as m identified abo and Tradema	I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:						
I hereby appo	OR I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:						
	Practitioner(s) Name		Registration	n Number			
_	or change the correspondence address		e-identified app	olication to:			
The address	associated with the above-mentioned Customer N	umber.		٦			
	ssociated with Customer Number:						
Firm or Individual Nar	ne						
Address							
City		State		Zip			
Country			,				
Telephone		Email					
I am the: Applicant/Inve	ntor.						
Assignee of re	cord of the entire interest. See 37 CFR 3.71. der 37 CFR 3.73(b) (Form PTO/SB/96) submitted	herewith or filed o	on_03/19/20	09			
	SIGNATURE of Applica	nt or Assignee o	of Record				
Signature	/THOM KIDRIN/		Date	1/18/2010			
Name	THOM KIDRIN		Telephone	617-803-0004			
Title and Company	WORLDS, INC.						
NOTE : Signatures of all signature is required, se	the inventors or assignees of record of the entire interest below $^{\star}.$	t or their represent	ative(s) are required	. Submit multiple forms if more than one			
*Total of	*Total of forms are submitted.						

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. 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 3 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 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

Electronic Acl	Electronic Acknowledgement Receipt				
EFS ID:	9284951				
Application Number:	12406968				
International Application Number:					
Confirmation Number:	6412				
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Customer Number:	35070				
Filer:	Anatoly Weiser.				
Filer Authorized By:					
Attorney Docket Number:	AP019CON3				
Receipt Date:	21-JAN-2011				
Filing Date:	19-MAR-2009				
Time Stamp:	19:11:21				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Information:

Submitted with Payment no			no			
File Listin	g:					
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	1 Power of Attorney POA003-	1464786	no	2		
'	r ower of Attorney	Ex	xecuted 2011 January 21. pdf	3f874f0c53fb4e2d465947d1a6c3c39b7298 fa82	110	2
Warnings:						

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

For: System and Method for Enabling

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2173

Examiner: Cao H. Nguyen

Attorney File No.: Worlds 003

Office Action Mailed On: 9/21/2010

Confirmation No.: 6412

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This paper is Applicants' reply to the outstanding Office action mailed on the date shown above (the "Office Action").

The Office Action set a shortened statutory period of three months for reply. Applicants petition for a time extension of one month under 37 CFR § 1.136(a)(1), and authorization is hereby granted to charge the small entity time extension fee under 37 CFR § 1.17(a) to Deposit Account No. 50-3196. If the undersigned attorney is mistaken regarding the time extension calculation, Applicants petition for a necessary extension of time, and authorization is hereby granted to charge

Worlds 003 UTL

Patent

the small entity time extension fee under 37 CFR § 1.17 required for the filing of this Reply to the same Deposit Account. This Reply is therefore timely.

Authorization is also granted to charge to the same Deposit Account additional claim fees (if any), and all other fees necessary to file this Reply and applicable to a small entity.

Amendments to the claims are reflected in the listing of claims that begins on page 3 of this paper.

Remarks begin on page 7 of this paper.

REMARKS

Claim Status

Claims 4-15 will be pending in the application after entry of the above amendments. This paper amends claims 4-8 and 11; does not cancel any claims; and adds new claims 12-15. The amendments are made without acquiescence to the rejections, without prejudice, without disclaimer, and without dedication to the public. Claims 4, 11, and 15 will be the independent claims of the application.

Summary of the Office Action

In the Office Action, claims 4-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiio et al., U.S. Patent Number 5,491,743 ("Shiio"), in view of Suzuki et al., U.S. Patent Number 5,736,982 ("Suzuki").

Applicants respectfully respond to the Office Action.

Terminal Disclaimers

A terminal disclaimer (disclaiming the term extending beyond that of U.S. Patent Number 7,181,690) was previously filed in this application. It appears that there is a technical difficulty that rendered the previously filed disclaimer not sufficiently legible. The undersigned attorney notes that the filed disclaimer was legible, and the copy of the disclaimer downloaded at the time of filing was also legible; but the terminal disclaimer appearing on USPTO PAIR is not as legible as the copy filed. A terminal disclaimer executed by the undersigned attorney is filed herewith, together with a Power of Attorney form executed by a representative of the assignee of the present application.

A second terminal disclaimer (disclaiming term extending beyond that of U.S. Patent Number 7,493,558) is also filed herewith.

Art Rejections

In rejecting claim 4 as being unpatentable over Shiio and Suzuki, the Office Action asserted that Shiio discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, citing Shiio's column 5, lines 42-60. Shiio fails to disclose or suggest receiving position information for fewer than all of the conference participants in the virtual conference room. Note that claim 4 has been now amended to clarify that the client device does not receive position information of at least some avatars of the other user avatars in the virtual space. Therefore, receiving position information for all of the avatars does not disclose or suggest the specific limitation in issue here. Suzuki also fails to disclose or suggest this limitation.

In sum, the references taken separately or together, do not disclose or suggest the limitation wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual place. Applicants respectfully submit that independent claim 4 is patentable at least for this reason.

Independent claims 11 and 15 recite limitations identical or analogous to those of claim 4 discussed above, and should be patentable at least for the same reason as discussed above in relation to claim 4.

Dependent claim 8 recites a limitation of wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space. It appears that the references fail to disclose or suggest this limitation, and therefore dependent claim 8 is separately patentable for this additional reason.

Patent

Claim 10 depends from claim 4 and recites additional limitations of wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room. The Office Action cited column 7, lines 15-62 of Shiio as disclosing these limitations. It appears that the Office Action considered the reference to a participant being added to a conference by dragging (paraphrased) to be analogous to teleporting. Applicants respectfully note that teleporting implies instantaneous or nearly instantaneous movement. Dragging, in contradistinction, is a gradual movement. Therefore, the references do not disclose or suggest the "teleporting" limitations of claim 10. Claim 10 should be separately patentable at least for this additional reason.

Dependent claims 5-7 and 9 should be patentable at least for the reasons applicable to their base claim 4.

New Claims

Support for the new claims 12-14 may be found, for example, on page 9, lines 13-26 of the specification as filed.

New independent claim 15 is analogous to the existing independent claims 4 and 11. Support for the *Beauregard*—type (memory storing) limitations in claim 15 may be found, for example, on page 6, line 14, through page 7, line 5, of the specification as filed.

Worlds 003 UTL Patent

CONCLUSION

Applicants submit that all pending claims are allowable. To discuss any matter pertaining to the instant application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

Respectfully submitted,

Dated: January 21, 2011 /Anatoly S. Weiser/

Acuity Law Group Anatoly S. Weiser, Reg. No. 43,229 3525 Del Mar Heights Road, #295 San Diego, CA 92130 (858) 720-9431 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.

Docket Number (Optional) TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING Worlds 003 **REJECTION OVER A "PRIOR" PATENT** In re Application of: Dave Leahy et al. Application No.: 12/406,968 Filed: 3/19/2009 For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE percent interest in the instant application hereby disclaims. as the term of said prior patent is defined in 35 U.S.C. 154 the expiration date of the full statutory term **prior patent** No. <u>7,181,690</u> and 173, and as the term of said **prior patent** is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later: expires for failure to pay a maintenance fee; is held unenforceable: is found invalid by a court of competent jurisdiction; is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; has all claims canceled by a reexamination certificate; is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer. Check either box 1 or 2 below, if appropriate. For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on in formation and belief are belie ved to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punis hable by fine or imprisonment, or both, under Se ction 1001 of Title 18 of the United States Code and that such statements may jeopardize the validity of the application or any patent issued thereon. 2. The undersigned is an attorney or agent of record. Reg. No. 43,229 01/21/2011 /Anatoly S. Weiser/ Signature Date Anatoly S. Weiser Typed or printed name (858) 720-9431 Telephone Number Terminal disclaimer fee under 37 CFR 1.20(d) included. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. 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 but reen, 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

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.

Docket Number (Optional) TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING Worlds 003 **REJECTION OVER A "PRIOR" PATENT** In re Application of: Dave Leahy et al. Application No.: 12/406,968 Filed: 3/19/2009 For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE percent interest in the instant application hereby disclaims, as the term of said prior patent is defined in 35 U.S.C. 154 the expiration date of the full statutory term **prior patent** No. 7,493,558 and 173, and as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later: expires for failure to pay a maintenance fee; is held unenforceable: is found invalid by a court of competent jurisdiction; is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; has all claims canceled by a reexamination certificate; is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer. Check either box 1 or 2 below, if appropriate. For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on in formation and belief are belie ved to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punis hable by fine or imprisonment, or both, under Se ction 1001 of Title 18 of the United States Code and that such statements may jeopardize the validity of the application or any patent issued thereon. 2. The undersigned is an attorney or agent of record. Reg. No. 43,229 01/21/2011 /Anatoly S. Weiser/ Signature Date Anatoly S. Weiser Typed or printed name (858) 720-9431 Telephone Number Terminal disclaimer fee under 37 CFR 1.20(d) included. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. 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 bu treen, 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

Electronic Patent Application Fee Transmittal							
Application Number:	12406968						
Filing Date:	19-	19-Mar-2009					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE						
First Named Inventor/Applicant Name:	Dave Leahy						
Filer:	An	atoly Weiser.					
Attorney Docket Number:	AP	019CON3					
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 - 1 month with \$0 paid		2251	1	65	65		

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Statutory or terminal disclaimer	2814	2	70	140
	Tot	al in USD	(\$)	205

Electronic Acl	knowledgement Receipt
EFS ID:	9285074
Application Number:	12406968
International Application Number:	
Confirmation Number:	6412
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE
First Named Inventor/Applicant Name:	Dave Leahy
Customer Number:	35070
Filer:	Anatoly Weiser.
Filer Authorized By:	
Attorney Docket Number:	AP019CON3
Receipt Date:	21-JAN-2011
Filing Date:	19-MAR-2009
Time Stamp:	19:27:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$205
RAM confirmation Number	7722
Deposit Account	503196
Authorized User	

File Listing:

Document	Document Description	File Name	File Size(Bytes)/	Multi	Pages
Number	Document Description	riie Naille	Message Digest	Part /.zip	(if appl.)

1	Amendment/Req. Reconsideration-After	Amendment 2-Image.pdf	1824467	no	10
'	Non-Final Reject	Amenamentz-image.pui	51f981debec188b560fd7ca3685643c80025 ec2c	110	10
Warnings:					
Information	:				
2	Terminal Disclaimer Filed	Terminal Disclaimer By ASW Over	210476	no	2
_	Terrina Biselanier Files	Pat7181690.pdf 32bb.	32bba852b2561765d0e6b992cdb2acd3a9 c25366		
Warnings:					
Information	:				
3	Terminal Disclaimer Filed	Disclaimer Filed Terminal Disclaimer By ASWOver	210485	no	2
,	reminar biselainter mea	Pat7493558.pdf	e0a210e4a82cdc9dc00a49cf7a625b7b778 edb91	110	-
Warnings:					
Information	:				
4	Fee Worksheet (PTO-875)	fee-info.pdf	32266	no	2
·	, 55 , 75 , 101 , 105 , 107 , 1	•	9b02f746c186218d83f81c53d25aa19c00d b6c0e	5	_
Warnings:					
Information	:				
		Total Files Size (in bytes)	22	77694	
			L		

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
o 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 12/406,968			ing Date 19/2009	To be Mailed	
APPLICATION AS FILED – PART I (Column 1) (Column 2)							SMALL ENTITY 🛛			OTHER THAN OR 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		1	N/A		
	SEARCH FEE (37 CFR 1.16(k), (i), o		N/A		N/A		N/A		1	N/A		
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A		
	AL CLAIMS CFR 1.16(i))		minus 20 =				X \$ =		OR	X \$ =		
IND	EPENDENT CLAIM CFR 1.16(h))	IS	minus 3 = *				X \$ =		1	X \$ =		
	APPLICATION SIZE 37 CFR 1.16(s))	sheet is \$25 additi	ts of pap 50 (\$125 ional 50 s	gs exceed 100 n size fee due for each n thereof. See 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 OTHER THAI (Column 1) (Column 2) (Column 3) SMALL ENTITY OR SMALL ENT									ER THAN ALL ENTITY			
AMENDMENT		CLAIMS	HIGHES									
	01/21/2011	REMAINING AFTER AMENDMENT		NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 12	Minus	** 20	= 0		X \$26 =	0	OR	X \$ =		
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 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		
		(Column 1)		(Column 2)	(Column 3)							
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =		OR	X \$ =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		OR	X \$ =		
		ize Fee (37 CFR 1	.16(s))						1			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
						• '	TOTAL ADD'L FEE		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.												

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.

CLAIM AMENDMENT

Please amend the claims in accordance with the following listing.

Listing of Claims

Claims 1-3 (Cancelled)

4. (Currently Amended) A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the method comprising the steps of:

customizing, using a <u>processor of a</u> client device-processor, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

5. (Currently Amended) The method according to claim 4, further comprising the steps step of:

monitoring an orientation of the first user avatar, and avatar;

wherein the step of determining comprises filtering the other user avatars displaying on the elient device all or less than all of the displayable set based on the monitored orientation of the first user avatar.

- 6. (Currently Amended) The method according to claim 4, wherein the step of customizing further comprises accessing a first database containing custom avatar images.
- 7. (Currently Amended) The method according to claim 6, wherein the step of customizing further comprises selecting information from the first database information that is used to render the avatars in the displayable set.
- 8. (Currently Amended) The method according to claim 4, further comprising receiving by the client device orientation information associated with fewer than all of the other user avatars, wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space.
- 9. (Previously Presented) The method according to claim 4, further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received.
- 10. (Previously Presented) The method according to claim 4, wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room.

11. (Currently Amended) A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:

a memory storing instructions; and

a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

receive position information associated with fewer than all of the other user avatars, wherein the processor does not receive position information of at least some avatars of the other user avatars in the virtual space; and

determine a set of the other users' avatars displayable on a screen associated with the client device.

12. (New) The method according to claim 4, further comprising the step of:

monitoring an orientation of the first user avatar;

wherein the step of determining comprises filtering the other user avatars based on at least one variable other than (1) positions of the other user avatars, and (2) orientation of the first user avatar.

13. (New) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on identifiers (IDs) of the other user avatars.

14. (New) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on a limit of the other user avatars that may be displayed on the client device display, the limit being set at the client device.

15. (New) An article of manufacture comprising at least one memory storing computer code for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the computer code comprising instructions for:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.



35070

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEPARTMENT OF A COMMUNICATION OF THE ADDRESS OF THE ADDRESS OF A COMMUNICATION OF THE ADDRESS OF THE ADDRES

APPLICATION NUMBER 12/406,968

ANATOLY S. WEISER

SAN DIEGO, CA 92130

3525 DEL MAR HEIGHTS ROAD, #295

FILING OR 371(C) DATE 03/19/2009

FIRST NAMED APPLICANT Dave Leahy

ATTY. DOCKET NO./TITLE WORLDS 003

CONFIRMATION NO. 6412 POA ACCEPTANCE LETTER

Date Mailed: 01/31/2011

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/21/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/sibrahim/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO CA 92130

MAILED

FEB 28 2011

OFFICE OF PETITIONS

In re Application of

Leahy et al.

Application No. 12/406,968

Filed: March 19, 2009

Attorney Docket No. WORLDS 003

DECISION ON PETITION TO WITHDRAW

FROM RECORD

This is a decision on the Request to Withdraw as attorney or agent of record under 37 C.F.R. § 1.36(b), filed January 5, 2011.

The request is **APPROVED**.

A grantable request to withdraw as attorney/agent of record must be signed by every attorney/agent seeking to withdraw or contain a clear indication that one attorney is signing on behalf of another/others. The Office will require the practitioner(s) to certify that he, she or they have: (1) given reasonable notice to the client, prior to the expiration of the reply period, which the practitioner(s) intends to withdraw from employment; (2) delivered to the client or a duly authorized representative of the client all papers and property (including funds) to which the client is entitled; and (3) notified the client of any replies that may be due and the time frame within which the client must respond, pursuant to 37 CFR 10.40 (c).

The request was signed by Anatoly S. Weiser on behalf of all attorneys/agents of record who are associated with Customer Number 35070. All attorneys/agents associated with Customer Number 35070 have been withdrawn. Applicants are reminded that there is no attorney of record at this time.

All future correspondence will be directed to the assignee, Worlds.com, Inc., at the address indicated below.

Telephone inquires concerning this decision should be directed to the undersigned at (571) 272-3206. All other inquires concerning either the examination or status of the application should be directed to the Technology Center.

Liana Walsh Petitions Examiner Office of Petitions

Jakak

cc:

WORLDS.COM, INC. 11 ROYAL ROAD BROOKLINE, MA 02445

PTO/SB/81 (01-09)
Approved for use through 11/30/2011. OMB 0651-0035
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.

POWER OF ATTORNEY OR **REVOCATION OF POWER OF ATTORNEY** WITH A NEW POWER OF ATTORNEY AND **CHANGE OF CORRESPONDENCE ADDRESS**

12/406,968
03/19/2009
Dave Leahy
SYSTEM AND METHOD FOR ENABLING USERS TO INT
2173
CAO H. NGUYEN
WORLDS 003

I hereby revoke all previous powers of attorney given in the above-identified application.						
A Power of A	ttorney is submitted herewith.	_				
Number as m identified abo and Tradema	int Practitioner(s) associated with the following Cu y/our attorney(s) or agent(s) to prosecute the appl ve, and to transact all business in the United State rk Office connected therewith:	ication		35070		
	int Practitioner(s) named below as my/our attorne business in the United States Patent and Tradem			oplication identified above, and		
	Practitioner(s) Name		Registration	n Number		
_	or change the correspondence address		e-identified app	olication to:		
The address	associated with the above-mentioned Customer N	umber.		٦		
	ssociated with Customer Number:					
Firm or Individual Nar	ne					
Address						
City		State		Zip		
Country			,			
Telephone		Email				
I am the: Applicant/Inventor.						
OR Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on						
SIGNATURE of Applicant or Assignee of Record						
Signature	/THOM KIDRIN/		Date	1/18/2010		
Name	THOM KIDRIN Telephone 617-803-0004					
Title and Company	WORLDS, INC.					
NOTE : Signatures of all signature is required, se	the inventors or assignees of record of the entire interest below $^{\star}.$	t or their represent	ative(s) are required	. Submit multiple forms if more than one		
*Total of	forms are submitted.					

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. 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 3 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

Electronic Acknowledgement Receipt					
EFS ID:	9569302				
Application Number:	12406968				
International Application Number:					
Confirmation Number:	6412				
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Correspondence Address:	WORLDS.COM, INC. - 11 ROYAL ROAD - BROOKLINE MA 02445 US				
Filer:	Anatoly Weiser.				
Filer Authorized By:					
Attorney Docket Number:	WORLDS 003				
Receipt Date:	02-MAR-2011				
Filing Date:	19-MAR-2009				
Time Stamp:	14:39:16				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	no
File Listing:	

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA003-	1464786	no	2
'		Executed2011January21.pdf	3f874f0c53fb4e2d465947d1a6c3c39b7298 fa82		
Warnings:				•	
Information:					
		Total Files Size (in bytes)	14	64786	

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.



35070

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEPARTMENT OF A COMMUNICATION OF THE ADDRESS OF A COMMUNICATION OF PATENTS PARENTS PAREN

APPLICATION NUMBER 12/406,968

ANATOLY S. WEISER

SAN DIEGO, CA 92130

3525 DEL MAR HEIGHTS ROAD, #295

FILING OR 371(C) DATE 03/19/2009

FIRST NAMED APPLICANT Dave Leahy

ATTY. DOCKET NO./TITLE WORLDS 003

CONFIRMATION NO. 6412 POWER OF ATTORNEY NOTICE



Date Mailed: 03/08/2011

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/05/2011.

• The withdrawal as attorney in this application has been accepted. Future correspondence will be mailed to the new address of record. 37 CFR 1.33.

/lswalsh/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEPARTMENT OF A COMMUNICATION OF THE ADDRESS OF A COMMUNICATION OF PATENTS PARENTS PAREN

APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT 12/406,968 03/19/2009

Dave Leahy

ATTY. DOCKET NO./TITLE WORLDS 003

CONFIRMATION NO. 6412 POA ACCEPTANCE LETTER

35070 ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130



Date Mailed: 03/23/2011

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/02/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/ttran/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.
12/406,968	03/19/2009	Dave Leahy	WORLDS 003	6412
35070 ANATOLY S.	7590 03/31/201 WEISER	1	EXAM	IINER
3525 DEL MAI SAN DIEGO, O	R HEIGHTS ROAD, #	295	NGUYEN	N, CAO H
SAN DIEGO, C	A 92130		ART UNIT	PAPER NUMBER
			2171	
			MAIL DATE	DELIVERY MODE
			03/31/2011	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.

	Application No.	Applicant(s)				
Office Action Summers	12/406,968	LEAHY ET AL.				
Office Action Summary	Examiner	Art Unit				
The MAU INC DATE of this communication communication	Cao (Kevin) Nguyen	2173				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timustill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
 Responsive to communication(s) filed on <u>21 Ja</u> This action is FINAL. 2b) ☐ This Since this application is in condition for allowar closed in accordance with the practice under E 	action is non-final. nce except for formal matters, pro					
Disposition of Claims						
4) ☐ Claim(s) 4-11 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 4-11 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	vn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the confidence Replacement drawing sheet(s) including the correction of the output of the output of the confidence of the output of the second of	epted or b) objected to by the formulation of the following of the following of the following of the drawing of the drawing of the drawing of the following of	e 37 CFR 1.85(a). jected 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). 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 Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate				

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

Office Action Summary

Part of Paper No./Mail Date 20110326

Art Unit: 2173

DETAILED ACTION

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.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiio (US Patent No. 5,491,743) and Suzuki et al. (US Patent No. 5,736,982) as applied to claims 4-11 above, and further in view of Copyright 1966 Post-Newsweek Business Information Inc. Newsbytes February 14, 1996.

Regarding claim 4, Shiio discloses a method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing the user in the virtual space, the method comprising: customizing, using a client device processor, an avatar in response to input by the first user input

(animated characteristics representing operators in virtual conference; see col. 5, lines 16-62); receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process (see col. 5, lines 42-60); however, Shiio fails to explicitly teach determining, by the client device, a displayable set of the other user avatars associated with the client device display.

Page 3

Suzuki discloses determining, by the client device, a displayable set of the other user avatars associated with the client device display (..the server is always supplied with the latest position information of the avatar from every terminal; see abstract and col. 1, lines 57-67 and col. 2, lines 1-13).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio and Suzuki before him at the time the invention was, modify the virtual conference system user of Shiio to include virtual space display method, as taught by Suzuki. One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality.

Suzuki and Shiio fail to explicitly teach receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the

other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

Newsbyte discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display (see Valentine's Day Wedding In A Virtual World, page 1-2).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio, Suzuki and Newsbytes before him at the time the invention was, modify the virtual conference system user of Shiio and Suzuki's virtual space display method to include Valentine's Day Wedding In A Virtual World, as taught by Newsbytes. One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality. It also provides an efficient communications network fro client-server network with small or larger number of clients.

Regarding claim 5, Shiio discloses further comprising the steps of: monitoring an orientation of the first user avatar, and displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar (see figures 4-5).

Regarding claim 6, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 5, lines 18-49).

Regarding claim 7, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 20, lines 16-54 and figure 2A).

Regarding claim 8, Shiio discloses wherein customizing further comprises selecting information from the first database that is used to render the avatar (see col. 13, lines 14-67).

Regarding claims 9, Shiio discloses further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received (see col. 6, lines 49-67 and col. 7, lines 1-21).

Regarding claims 10, Shiio discloses wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room (see col. 7, lines 15-62.)

Claim 11 differs from claim 4 in that "create a custom avatar in response to input by the first user; receive position information associated with fewer than all of the other user avatars; and determine a set of the other users' avatars displayable on a screen associated with the client device." which read on Shiio (see col. 14, lines 42-67).

Response to Arguments

Applicant's arguments filed on 01/21/11 have been fully considered but they are not persuasive.

In response to applicant's argument that resizing a windows, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the

Art Unit: 2173

prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

On pages 8-9 of the Remarks; Applicant's argues that the combination of Shiio, Suzuki and Newsbyte do not teach or suggest "fewer than all". However, the examiner respectfully disagrees. Newsbyte discloses avatars and participant is limited; as recited in display (see Valentine's Day Wedding In A Virtual World, page 1-2).

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Shiio discloses the virtual conference system, to include virtual space display method of Suzuki used in combination of Newbytes Valentine's Day Wedding In A Virtual World.

One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality. It also

Art Unit: 2173

provides an efficient communications network fro client-server network with small or larger number of clients.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

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 Cao (Kevin) Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.

Application/Control Number: 12/406,968 Page 8

Art Unit: 2173

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571)272-4057. 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.

/Cao (Kevin) Nguyen/ Primary Examiner, Art Unit 2173

03/26/11

Notice of References Cited	Application/Control No. 12/406,968	Applicant(s)/Patent Under Reexamination LEAHY ET AL.	
Notice of neterences cited	Examiner	Art Unit	
	Cao (Kevin) Nguyen	2173	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	Α	US-			
	В	US-			
	C	US-			
	D	US-			
	Е	US-			
	F	US-			
	G	US-			
	Н	US-			
	-	US-			
	J	US-			
	K	US-			
	L	US-			
	М	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	Ν					
	0					
	Р					
	Q					
	R					
	S					
	Т					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Valentine wedding in a virtual world Copyright 1966 Post-Newsweek Business Information Inc. Newsbytes February 14, 1996.
	٧	
	w	
	х	

*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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20110326

Application Number	Application/Control No.		Applicant(s)/Patent under Reexamination LEAHY ET AL.	
1 188181 11818 11811 81811 88118 81118 81118 81181 81181 1811 1881				
Document Code - DISQ		Internal D	ocument – DC	NOT MAIL

TERMINAL DISCLAIMER	⊠ APPROVED	□ DISAPPROVED
Date Filed : 1/21/11	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:	
lanice Ford	

U.S. Patent and Trademark Office

Document Code - DISQ		Internal D	ocument – DC	NOT MAIL	
	12/406,968		LEAHY ET AL.		
Application Number	Application/Control No.		Applicant(s)/Patent under Reexamination		

TERMINAL DISCLAIMER	⊠ APPROVED	□ DISAPPROVED
Date Filed : 1/14/11	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:	
Janice Ford	

U.S. Patent and Trademark Office

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

FOI: SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2171

Examiner: Cao H. Nguyen

Attorney File No.: Worlds 003

Office Action Mailed On: 3/31/2011

Confirmation No.: 6412

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This paper is Applicants' reply (the "Reply") to the outstanding final Office action mailed on the date shown above (the "Final Office Action").

The Final Office Action set a shortened statutory period of three months for reply. This Reply is being filed within the set period and therefore is timely. If the undersigned attorney is mistaken regarding timeliness of this Reply, Applicants conditionally petition for a time extension under 37 CFR § 1.136(a)(1), and authorization is hereby granted to charge the applicable small entity time extension fee under 37 CFR § 1.17 to Deposit Account No. 50-3196.

Worlds 003 UTL

Patent

Authorization is also granted to charge to the same Deposit Account small entity additional claim fees (if any), and all other fees necessary to file this Reply and applicable to a small entity.

Amendments to the claims, if any, are reflected in the listing of claims that begins on page 3 of this paper.

Remarks begin on page 8 of this paper.

REMARKS

Claim Status

Claims 4-17 will be pending in the application after entry of the above amendments. This paper adds new claims 16 and 17; and does not amend or cancel any claims. Claims 4, 11, and 15 are the independent claims of the application.

Summary of the Final Office Action

In the Final Office Action, claims 4-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiio *et al.*, U.S. Patent Number 5,491,743 ("Shiio"), in view of Suzuki *et al.*, U.S. Patent Number 5,736,982 ("Suzuki"), and further in view of McKenna, Valentine's Day Wedding in a Virtual World, Post-Newsweek Business Information Inc. Newsbytes (February 14, 1996) ("Newsbytes" hereinafter).

Applicants respectfully respond to the Final Office Action.

Finality of the Action

A second or subsequent Office action "on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)." MPEP § 706.07(a). In the present case, the Final Office Action introduces a new ground of rejection based on a new reference, Newsbytes. The amendment of claim 11 made in the previous paper filed by the Applicants was clarifying; the amendment clarified that (paraphrasing) the processor that received position information associated with fewer than all of the other user avatars does not receive position

information of at least avatars of the other users. We respectfully submit that the new rejection of claim 11 was not necessitated by the amendments in the previous paper.

The new rejection is also not based on an information disclosure statement (IDS) submitted as described in MPEP \$706.07(a), because no such IDS has been submitted after the previous Office action (which was mailed on September 21, 2010).

Therefore, finality of the current Office Action is premature and should be withdrawn. See MPEP § 706.07(d). Additionally, the Final Office Action does not address the status of claims 12-15. We respectfully request the Examiner to withdraw the finality of the Office Action, enter the above amendments, and consider the arguments presented below.

Further, the new claims 16 and 17 are analogous, respectively, to claims 8 and 10, and thus would require only a cursory review. The amendment may therefore be entered regardless of the finality of the action. See MPEP § 714.13(II); 37 C.F.R. § 1.116(b)(2) & (3).

Art Rejections

The Final Office Action acknowledged that Shiio and Suzuki do not disclose certain limitations of independent claims 4 and 11. In particular, the Final Office Action acknowledged that "Suzuki and Shiio fail to explicitly teach receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display." The Final Office Action then relied on Newsbyte to fill-in the admitted gaps on the disclosures of the other two references.

Newsbyte's date is February 14, 1996. The present application claims priority based on U.S. provisional patent application serial number 60/020,296, which was filed on November 13, 1995. Therefore, Newsbyte is not art <u>prior</u> to the present application.

Applicants respectfully submit that independent claim 4 is patentable over the cited references at least for the above reasons.

Independent claim 11 recites limitations identical or analogous to those of claim 4 discussed above, and stands rejected on the same ground as claim 4. Applicants respectfully submit that independent claim 11 is patentable over the cited reference at least for the same reasons as are discussed above in relation to claim 4.

Dependent claim 8 recites a limitation of wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space. It appears that the references fail to disclose or suggest this limitation, and therefore dependent claim 8 is separately patentable for this additional reason.

Claim 10 depends from claim 4 and recites additional limitations of wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room. The Office Action cited column 7, lines 15-62 of Shiio as disclosing these limitations. It appears that the Office Action considered the reference to a participant being added to a conference by dragging (paraphrased) to be analogous to teleporting. Applicants respectfully note that teleporting implies instantaneous or nearly instantaneous movement. Dragging, in contradistinction, is a gradual movement. Therefore, the references do not disclose or suggest the "teleporting" limitations of claim 10, and claim 10 is therefore separately patentable at least for this additional reason. We have previously presented this argument, but the Final Office Action has not addressed it.

Worlds 003 UTL

Patent

Dependent claims 5-7 and 9 should be patentable at least for the reasons applicable to their base claim 4.

New Claims

New claim 16 is analogous to claim 8.

New claim 17 is analogous to claim 10.

Worlds 003 UTL Patent

CONCLUSION

Applicants submit that all pending claims are allowable. To discuss any matter pertaining to the instant application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

Respectfully submitted,

Dated: May 24, 2011 /Anatoly S. Weiser/

Acuity Law Group Anatoly S. Weiser, Reg. No. 43,229 3525 Del Mar Heights Road, #295 San Diego, CA 92130 (858) 720-9431

Electronic Acknowledgement Receipt						
EFS ID:	10157124					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser.					
Filer Authorized By:						
Attorney Docket Number:	WORLDS 003					
Receipt Date:	24-MAY-2011					
Filing Date:	19-MAR-2009					
Time Stamp:	14:19:51					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted wit	Submitted with Payment no						
File Listing	j:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Amendment After Final		Amendment 3-Image.pdf	2043648	no	12	
'			menaments image.par	af48de3f41a98644225874c19ec18817e0d6 41eb	***		
Warnings:							
Information:							

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

FOI: SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2171

Examiner: Cao H. Nguyen

Attorney File No.: Worlds 003

Office Action Mailed On: 3/31/2011

Confirmation No.: 6412

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

REQUEST FOR INTERVIEW

Applicants and the undersigned attorney request a telephonic interview between (1) the undersigned attorney, and (2) the Honorable Examiner Mulugeta Cao H. Nguyen. We would like to discuss finality of the Office Action, the Newsbytes reference, and other matters pertaining to art rejections of the claims.

We propose June 2, 2011, at 2 pm Eastern Daylight Savings Time, for the telephonic interview. Alternative dates and times can easily be reserved.

Dated: May 24, 2011 /Anatoly S. Weiser/

Anatoly S. Weiser, Reg. No. 43,229 Acuity Law Group 3525 Del Mar Heights Road, #295 San Diego, CA 92130 (858) 720-9431

Electronic Acknowledgement Receipt						
EFS ID:	10161276					
Application Number:	12406968					
International Application Number:						
Confirmation Number:	6412					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE					
First Named Inventor/Applicant Name:	Dave Leahy					
Customer Number:	35070					
Filer:	Anatoly Weiser.					
Filer Authorized By:						
Attorney Docket Number:	WORLDS 003					
Receipt Date:	24-MAY-2011					
Filing Date:	19-MAR-2009					
Time Stamp:	17:54:15					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted witl	n Payment	no	no						
File Listing:									
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)				
1	Letter Requesting Interview with	Interview Request Image.pdf	197683no		1				
'	Examiner	interviewnequestimage.par	e4d5f5ce1f9eddf13ae463b199f100b1917a 0ed1	110	"				
Warnings:									
Information:									

197683

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
o 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 12/406,968			ing Date 19/2009	To be Mailed	
APPLICATION AS FILED – PART I (Column 1) (Column 2)							SMALL ENTITY 🛛				HER THAN ALL ENTITY	
	FOR		MBER FIL		MBER EXTRA		RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)	
	BASIC FEE (37 CFR 1.16(a), (b),	or (c))	N/A		N/A		N/A		1	N/A		
	SEARCH FEE (37 CFR 1.16(k), (i), (or (m))	N/A		N/A		N/A			N/A		
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A		
	AL CLAIMS CFR 1.16(i))		mir	us 20 = *			X \$ =		OR	X \$ =		
IND	EPENDENT CLAIM CFR 1.16(h))	IS	m	inus 3 = *			X \$ =			X \$ =		
	APPLICATION SIZE 37 CFR 1.16(s))	sheet is \$25 additi 35 U.	s of pape 50 (\$125 onal 50 s S.C. 41(ation and drawing er, the application for small entity) sheets or fraction a)(1)(G) and 37 (n size fee due for each ı thereof. See							
Ш	MULTIPLE DEPEN											
* If t	he difference in colu	umn 1 is less than :	zero, ente	r "0" in column 2.			TOTAL		l	TOTAL		
	APP	(Column 1)	AMENE	DED — PART II (Column 2)	(Column 3)		SMAL	L ENTITY			ER THAN ALL ENTITY	
AMENDMENT	05/24/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
ME	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0		X \$26 =	0	OR	X \$ =		
Z.	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0		X \$110 =	0	OR	X \$ =		
√ME	Application Si	ize Fee (37 CFR 1.	16(s))									
	FIRST PRESEN	NTATION OF MULTIP	LE DEPEN	DENT CLAIM (37 CFF	R 1.16(j))				OR			
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE		
		(Column 1)		(Column 2)	(Column 3)							
L		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
EN	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =		OR	X \$ =		
ĮΣ	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		OR	X \$ =		
AMEND	Application Si	ize Fee (37 CFR 1.	16(s))									
AM	FIRST PRESEN	NTATION OF MULTIP	LE DEPEN	DENT CLAIM (37 CFF	R 1.16(j))				OR			
* If t	the entry in column	1 is less than the e	ntry in col	umn 2, write "0" in	column 3.	• '	TOTAL ADD'L FEE	netrumont Ex	OR	TOTAL ADD'L FEE		
** If *** I	the "Highest Numbe f the "Highest Numb "Highest Number P	er Previously Paid per Previously Paid	For" IN TH	HS SPACE is less HIS SPACE is less	than 20, enter "20' than 3, enter "3".		/KĒLLY	nstrument Ex HARRIS/ priate box in colu		ы.		

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.

CLAIM AMENDMENT

Please amend the claims in accordance with the following listing, which will replace all prior listings and versions of claims.

Listing of Claims

Claims 1-3 (Cancelled)

4. (Previously Presented) A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the method comprising the steps of:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

5. (Previously Presented) The method according to claim 4, further comprising the step of:
monitoring an orientation of the first user avatar;

3

wherein the step of determining comprises filtering the other user avatars based on the monitored orientation of the first user avatar.

- 6. (Previously Presented) The method according to claim 4, wherein the step of customizing comprises accessing a first database containing custom avatar images.
- 7. (Previously Presented) The method according to claim 6, wherein the step of customizing further comprises selecting from the first database information that is used to render the avatars in the displayable set.
- 8. (Previously Presented) The method according to claim 4, further comprising receiving by the client device orientation information associated with fewer than all of the other user avatars, wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space.
- 9. (Previously Presented) The method according to claim 4, further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received.
- 10. (Previously Presented) The method according to claim 4, wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room.

11. (Previously Presented) A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:

a memory storing instructions; and

a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

receive position information associated with fewer than all of the other user avatars, wherein the processor does not receive position information of at least some avatars of the other user avatars in the virtual space; and

determine a set of the other users' avatars displayable on a screen associated with the client device.

12. (Previously Presented) The method according to claim 4, further comprising the step of:
monitoring an orientation of the first user avatar;

wherein the step of determining comprises filtering the other user avatars based on at least one variable other than (1) positions of the other user avatars, and (2) orientation of the first user avatar.

13. (Previously Presented) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on identifiers (IDs) of the other user avatars.

14. (Previously Presented) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on a limit of the other user avatars that may be displayed on the client device display, the limit being set at the client device.

15. (Previously Presented) An article of manufacture comprising at least one memory storing computer code for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the computer code comprising instructions for:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

16. (New) The article of manufacture according to claim 15, wherein the computer code further comprises instructions for receiving by the client device orientation information associated with fewer than all of the other user avatars, wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space.

Worlds 003 UTL

Patent

- 17. (New) The article of manufacture according to claim 15, wherein the virtual space comprises
- a first virtual room and a second virtual room, and the method further comprises teleporting an avatar from the first virtual room to the second virtual room.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
12/406,968	03/19/2009	Dave Leahy	WORLDS 003	6412		
35070 ANATOLY S.	7590 07/12/201 WEISER	1	EXAM	IINER		
3525 DEL MA SAN DIEGO, O	R HEIGHTS ROAD, #	NGUYEN, CAO H				
SAN DIEGO, C	JA 92130		ART UNIT	PAPER NUMBER		
			2171			
			MAIL DATE	DELIVERY MODE		
			07/12/2011	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.

	Application No.	Applicant(s)						
Office Action Cumment	12/406,968	LEAHY ET AL.						
Office Action Summary	Examiner	Art Unit						
The MAN INC DATE of the communication and	Cao "Kevin" Nguyen	2171						
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orresponaence address						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE of the stensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period was really received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).						
Status								
 Responsive to communication(s) filed on <u>24 M</u> This action is FINAL. 2b) ☐ This Since this application is in condition for allowar closed in accordance with the practice under E 	action is non-final. nce except for formal matters, pro							
Disposition of Claims								
4) ☐ Claim(s) 4-11 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 4-11 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.							
Application Papers								
10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the correct application and the correct applications are requested as a second access and a second access are required as a second access and access and access are required as a second access and access access and access are required as a second access and access are r	9) The specification is objected to by the Examiner. 10) 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). 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)	4) Interview Summary Paper No(s)/Mail Da							
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal F 6) Other:							

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

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.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiio (US Patent No. 5,491,743) and Suzuki et al. (US Patent No. 5,736,982) as applied to claims 4-11 above, and further in view of Nitta (US Patent No. 5,347,306)

Regarding claim 4, Shiio discloses a method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing the user in the virtual space, the method comprising: customizing, using a client device processor, an avatar in response to input by the first user input (animated characteristics representing operators in virtual conference; see col. 5, lines 16-62); receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process (see col. 5, lines 42-60); however, Shiio fails to explicitly teach determining, by the client device, a displayable set of the other user avatars associated with the client device display.

Suzuki discloses determining, by the client device, a displayable set of the other user avatars associated with the client device display (..the server is always supplied with the latest position information of the avatar from every terminal; see abstract and col. 1, lines 57-67 and col. 2, lines 1-13).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio and Suzuki before him at the time the invention was, modify the virtual conference system user of Shiio to include virtual space display method, as taught by Suzuki. One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality.

Suzuki and Shiio fail to explicitly teach receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

Nitta discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display (see abstract and col. 3, lines 1-67 and figures2-3).

It would have been obvious to one of ordinary skill in the art, having the teachings of Shiio, Suzuki and Nitta before him at the time the invention was, modify the virtual conference system user of Shiio and Suzuki's virtual space display method to include animated electronic meeting place, as taught by Nitta. One would have been motivated to make such a combination in order to in order to provide each user terminal uses the relationship between position information of its avatar and that of the other avatars to determine the 3-D image quality of the latter, then requests the other terminals or a server for video images of the other avatars, each having the thus determined quality, and the other terminals or server sends the requested 3-D images of the avatars to the requesting terminal after converting them into video images of the specified quality. It also provides an efficient communications network fro client-server network with small or larger number of clients.

Regarding claim 5, Shiio discloses further comprising the steps of: monitoring an orientation of the first user avatar, and displaying on the client device all or less than all of the displayable set based on the monitored orientation of the first user avatar (see figures 4-5).

Regarding claim 6, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 5, lines 18-49).

Regarding claim 7, Suzuki discloses wherein customizing further comprises accessing a first database containing custom avatar images (see col. 20, lines 16-54 and figure 2A).

Regarding claim 8, Shiio discloses wherein customizing further comprises selecting information from the first database that is used to render the avatar (see col. 13, lines 14-67).

Regarding claims 9, Shiio discloses further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received (see col. 6, lines 49-67 and col. 7, lines 1-21).

Regarding claims 10, Shiio discloses wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room (see col. 7, lines 15-62.)

Claim 11 differs from claim 4 in that "create a custom avatar in response to input by the first user; receive position information associated with fewer than all of the other user avatars; and determine a set of the other users' avatars displayable on a screen associated with the client device." which read on Shiio (see col. 14, lines 42-67).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892).

Application/Control Number: 12/406,968 Page 6

Art Unit: 2171

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao "Kevin" Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on (571)272-3721. 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.

/Cao "Kevin" Nguyen/ Primary Examiner, Art Unit 2171

06/10/11

Notice of References Cited	Application/Control No. 12/406,968	Applicant(s)/Patent Under Reexamination LEAHY ET AL.		
Notice of neterences cited	Examiner	Art Unit		
	Cao "Kevin" Nguyen	2171	Page 1 of 1	

U.S. PATENT DOCUMENTS

	U.S. PALENT DOCUMENTS								
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification				
*	А	US-5,347,306	09-1994	Nitta, Tohei	348/14.1				
	В	US-							
	С	US-							
	D	US-							
	Е	US-							
	F	US-							
	G	US-							
	Н	US-							
	ı	US-							
	J	US-							
	К	US-							
	L	US-							
	М	US-							

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	Q					
	R					
	s					
	Т					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	٧	
	w	
	х	

*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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20110707

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

FOI: SYSTEM AND METHOD FOR ENABLING

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2171

Examiner: Cao H. Nguyen

Attorney File No.: Worlds 003

Office Action Mailed On: 3/31/2011

Confirmation No.: 6412

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 ok to enter 07/1/11

REPLY TO OFFICE ACTION

Sir:

This paper is Applicants' reply (the "Reply") to the outstanding final Office action mailed on the date shown above (the "Final Office Action").

The Final Office Action set a shortened statutory period of three months for reply. This Reply is being filed within the set period and therefore is timely. If the undersigned attorney is mistaken regarding timeliness of this Reply, Applicants conditionally petition for a time extension under 37 CFR § 1.136(a)(1), and authorization is hereby granted to charge the applicable small entity time extension fee under 37 CFR § 1.17 to Deposit Account No. 50-3196.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Dave Leahy et al.

Serial No.: 12/406,968

Filed: March 19, 2009

For: System and Method for Enabling

USERS TO INTERACT IN A VIRTUAL

SPACE

Group Art Unit: 2171

Examiner: Cao H. Nguyen

Attorney File No.: Worlds 003

Office Action Mailed On: 7/12/2011

Confirmation No.: 6412

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This paper is Applicants' reply (the "Reply") to the outstanding Office action mailed on the date shown above (the "Office Action").

The Office Action set a shortened statutory period of three months for reply. This Reply is being filed within the set period and therefore is timely. If the undersigned attorney is mistaken regarding timeliness of this Reply, Applicants conditionally petition for a time extension under 37 CFR § 1.136(a)(1), and authorization is hereby granted to charge the applicable small entity time extension fee under 37 CFR § 1.17 to Deposit Account No. 50-3196.

Worlds 003 Patent

Authorization is also granted to charge to the same Deposit Account small entity additional claim fees (if any), and all other fees necessary to file this Reply and applicable to a small entity.

Amendments to the claims, if any, are reflected in the listing of claims that begins on page 3 of this paper.

Remarks begin on page 8 of this paper.

REMARKS

Claim Status

Claims 4-17 are pending in the application. This paper does not add new claims, does not cancel any claims, and does not amend any claims. Claims 4, 11, and 15 are the independent claims of the application.

Summary of the Office Action

In the Office Action, claims 4-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiio et al., U.S. Patent Number 5,491,743 ("Shiio"), Suzuki et al., U.S. Patent Number 5,736,982 ("Suzuki"), and further in view of Nitta, U.S. Patent Number 5,347,306 ("Nitta").

Applicants respectfully respond to the Office Action.

Art Rejections

The Office Action acknowledged that Shiio and Suzuki do not disclose certain limitations of independent claims 4 and 11. As the Office Action acknowledged on page 4, "Suzuki and Shiio fail to explicitly teach receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space; and displaying, on the client device display, the displayable set of the other user avatars associated with the client device display." The Office Action cited Nitta for the purported disclosure of these limitations. In particular, the Office Action cited Nitta's Abstract, Figures 2 and 3, and lines 1-67 of column 3.

We have reviewed the cited portions of Nitta as well as the rest of that document, but have identified neither explicit disclosure nor a suggestion of the limitations in issue here. To the

contrary, in the cited text (the abstract and column 3), Nitta teaches "showing the meeting with all of the participants including the individual participant as himself," Nitta, abstract, lines 16-18 (underlining added); id., column 3, lines 26-28 (underlining added). Nitta not only fails to disclose or suggest the limitations in issue here, but in fact teaches away from them: showing the meeting with all of the participants.

Applicants respectfully submit that independent claim 4 is patentable over the cited references at least for the above reasons.

Independent claim 11 recites limitations identical or analogous to those of claim 4 discussed above, and stands rejected on the same ground as claim 4. Applicants respectfully submit that independent claim 11 is patentable over the cited references at least for the same reasons as are discussed above in relation to claim 4.

Dependent claim 8 recites a limitation of wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space. In rejecting this claim, the Office Action asserted (page 5) that "Shiio discloses wherein customizing further comprises selecting information from the first database that is used to render the avatar (see col. 13, lines 14-67)." Even if Shiio disclosed "selecting information from the first database that is used to render the avatar," such disclosure appears irrelevant to the limitation of wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space. If the rejection is repeated, we respectfully request an explanation of the alleged relevance of Shiio's disclosure of the client device not receiving orientation information of at least some avatars to the limitations in issue here. We submit that the references fail to disclose or suggest these limitations, and therefore dependent claim 8 is separately patentable over the references.

Claim 10 depends from base claim 4 and recites additional limitations of wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room. The Office Action (at page 5) cited column 7, lines 15-62 of the Shiio reference for the disclosure these limitations. It appears that the Office Action considered the reference to a participant being added to a conference by dragging (paraphrased) to be analogous to teleporting. Applicants respectfully note that teleporting implies a movement from one room to another without traversing intermediate space, and may also involve movement that is instantaneous or nearly instantaneous. Dragging, in contradistinction, is a gradual movement, traversing the space from the initial point to the final point. Shiio and the other references do not disclose or suggest the "teleporting" limitations of claim 10, and claim 10 is therefore separately patentable at least for this additional reason.

Dependent claims 5-7 and 9 should be patentable at least for the reasons applicable to their base claim 4.

Worlds 003 Patent

CONCLUSION

We respectfully submit that all pending claims are allowable. To discuss any matter pertaining to the instant application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

Respectfully submitted,

Dated: August 31, 2011 /Anatoly S. Weiser/

Acuity Law Group
Anatoly S. Weiser, Reg. No. 43,229
3525 Del Mar Heights Road, #295
San Diego, CA 92130
(858) 720-9431

Electronic Acl	knowledgement Receipt
EFS ID:	10858794
Application Number:	12406968
International Application Number:	
Confirmation Number:	6412
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE
First Named Inventor/Applicant Name:	Dave Leahy
Customer Number:	35070
Filer:	Anatoly Weiser.
Filer Authorized By:	
Attorney Docket Number:	WORLDS 003
Receipt Date:	31-AUG-2011
Filing Date:	19-MAR-2009
Time Stamp:	23:53:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted wi	th Payment	no	no							
File Listing:										
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)					
1	Amendment/Req. Reconsideration-After	Amendment4-Image.pdf	1335425	no	11					
·	Non-Final Reject	, unenament image.pai	5c62f03808babef78c4f127639c0c4791820 1af4	,,,,						
Warnings:										
Information:										

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
o 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 12/406,968			ing Date 19/2009	To be Mailed
	Al	D – PART I		SMALL ENTITY 🛛				HER THAN			
(Column 1) (Column 2) 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		1	N/A	
	SEARCH FEE (37 CFR 1.16(k), (i), (i	or (m))	N/A		N/A		N/A			N/A	
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A	
	ΓAL CLAIMS CFR 1.16(i))		mir	us 20 = *			X \$ =		OR	X \$ =	
IND	EPENDENT CLAIM CFR 1.16(h))	S	m	inus 3 = *			X \$ =		1	X \$ =	
	APPLICATION SIZE (37 CFR 1.16(s))	sheet is \$25 additi 35 U.	s of pape 50 (\$125 onal 50 s S.C. 41(ation and drawing er, the application for small entity) sheets or fraction a)(1)(G) and 37 (n size fee due for each ı thereof. See						
Ш	MULTIPLE DEPEN										
* If t	he difference in colu	ımn 1 is less than :	zero, ente	r "0" in column 2.			TOTAL		l	TOTAL	
	APP	(Column 1)	AMENE	DED — PART II (Column 2)	(Column 3)		SMALL ENTITY				ER THAN ALL ENTITY
AMENDMENT	08/31/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
)ME	Total (37 CFR 1.16(i))	∗ 13	Minus	** 20	= 0		X \$26 =	0	OR	X \$ =	
Z.	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0		X \$110 =	0	OR	X \$ =	
¥ ME	Application Si	ze Fee (37 CFR 1.	.16(s))								
	FIRST PRESEN	ITATION OF MULTIP	LE DEPEN	DENT CLAIM (37 CFF	R 1.16(j))				OR		
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	
		(Column 1)		(Column 2)	(Column 3)						
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
ENT	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =		OR	X \$ =	
ĮΣ	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		OR	X \$ =	
AMEND		ze Fee (37 CFR 1.	16(s))								
AM	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR		
	the entry in column					•		nstrument Ex	OR (amin	TOTAL ADD'L FEE er:	
***	the "Highest Number f the "Highest Numb "Highest Number P	er Previously Paid	For" IN T	HIS SPACE is less	than 3, enter "3".		/TAMAF	RA DARKO/			

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.

CLAIM AMENDMENT

Please amend the claims in accordance with the following listing, which will replace all prior listings and versions of claims.

Listing of Claims

Claims 1-3 (Cancelled)

4. (Previously Presented) A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the method comprising the steps of:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

5. (Previously Presented) The method according to claim 4, further comprising the step of: monitoring an orientation of the first user avatar;

3

wherein the step of determining comprises filtering the other user avatars based on the monitored orientation of the first user avatar.

- 6. (Previously Presented) The method according to claim 4, wherein the step of customizing comprises accessing a first database containing custom avatar images.
- 7. (Previously Presented) The method according to claim 6, wherein the step of customizing further comprises selecting from the first database information that is used to render the avatars in the displayable set.
- 8. (Previously Presented) The method according to claim 4, further comprising receiving by the client device orientation information associated with fewer than all of the other user avatars, wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space.
- 9. (Previously Presented) The method according to claim 4, further comprising storing an entry including a pointer to an image associated with the other user avatars for which position information has been received.
- 10. (Previously Presented) The method according to claim 4, wherein the virtual space further comprises two or more virtual rooms and the method further comprises an avatar teleporting from a first virtual room to a second virtual room.

11. (Previously Presented) A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:

a memory storing instructions; and

a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

receive position information associated with fewer than all of the other user avatars, wherein the processor does not receive position information of at least some avatars of the other user avatars in the virtual space; and

determine a set of the other users' avatars displayable on a screen associated with the client device.

12. (Previously Presented) The method according to claim 4, further comprising the step of: monitoring an orientation of the first user avatar;

wherein the step of determining comprises filtering the other user avatars based on at least one variable other than (1) positions of the other user avatars, and (2) orientation of the first user avatar.

13. (Previously Presented) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on identifiers (IDs) of the other user avatars.

14. (Previously Presented) The method according to claim 4, wherein the step of determining comprises filtering the other user avatars based on a limit of the other user avatars that may be displayed on the client device display, the limit being set at the client device.

15. (Previously Presented) An article of manufacture comprising at least one memory storing computer code for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the computer code comprising instructions for:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, wherein the client device does not receive position information of at least some avatars of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

16. (Previously Presented) The article of manufacture according to claim 15, wherein the computer code further comprises instructions for receiving by the client device orientation information associated with fewer than all of the other user avatars, wherein the client device does not receive orientation information of at least some avatars of the other user avatars in the virtual space.

17. (Previously Presented) The article of manufacture according to claim 15, wherein the virtual space comprises a first virtual room and a second virtual room, and the method further comprises teleporting an avatar from the first virtual room to the second virtual room.

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

35070 7590 11/04/2011 ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130

EXAMINER NGUYEN, CAO H ART UNIT PAPER NUMBER 2171

DATE MAILED: 11/04/2011

		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/406,968	03/19/2009	Dave Leahy	WORLDS 003	6412

TITLE OF INVENTION: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0	\$1170	02/06/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Page 1 of 3

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

maintenance fee notifica CURRENT CORRESPOND 35070 ANATOLY S. 3525 DEL MAR SAN DIEGO, C		pape have I her State	rs. Each additional its own certificate Cert eby certify that thits Postal Service w	paper of mai ificate s Fee(ith suf	g can only be used for icate cannot be used for such as an assignment of Mailing or Transmission. Transmittal is being fricient postage for firm ISSUE FEE address 1) 273-2885, on the dates.	mt or t mission g depo	ormal drawing, must on sited with the United s mail in an envelope , or being facsimile icated below.		
									(Signature) (Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		АТТО	RNEY DOCKET NO.	CO	NFIRMATION NO.
12/406,968 TITLE OF INVENTION	03/19/2009 N: SYSTEM AND METH	IOD FOR ENABLING U	Dave Leahy ISERS TO INTERACT	ΓIN.	A VIRTUAL SPA		WORLDS 003		6412
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE		DATE DUE
nonprovisional	YES	\$870	\$300		\$0		\$1170		02/06/2012
EXAM	MINER	ART UNIT	CLASS-SUBCLASS	3					
NGUYEI	N, CAO H	2171	715-706000						
CFR 1.363). Change of correst Address form PTO/S "Fee Address" inc PTO/SB/47; Rev 03-Number is required 3. ASSIGNEE NAME A PLEASE NOTE: Un	AND RESIDENCE DATA lless an assignee is ident th in 37 CFR 3.11. Com	nge of Correspondence	data will appear on the	ip to mative or a attor Il be j or type ne pag an a	3 registered patenely, 6 firm (having as a gent) and the nameneys or agents. If portinted. e) tent. If an assigners is a signment.	membes of uno nam	er a 2p to le is 3lentified below, the d	ocume	ent has been filed for
Please check the appropr	riate assignee category or	categories (will not be pr	rinted on the patent):		Individual 🖵 Co	rporati	on or other private gro	oup en	tity 🗖 Government
	are submitted: No small entity discount p # of Copies	permitted)	b. Payment of Fee(s): (A check is enclos Payment by credi The Director is he overpayment, to I	ed. t care	i. Form PTO-2038	is attage the	ched. required fee(s), any de	ficien	
	ntus (from status indicate ns SMALL ENTITY statu		□ h Amuliaantiana	1	on alaimina CMAT	I DAY	ΠΤΥ status. See 37 C	DD 1-2	7(~)(2)
		uired) will not be accepte tes Patent and Trademark							
Authorized Signature	,								
This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V	nation is required by 37 C ntiality is governed by 35 d application form to the ions for reducing this bu Virginia 22313-1450. DO	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the NOT SEND FEES OR (on is required to obtain 1.14. This collection i depending upon the i c Chief Information O COMPLETED FORM	or restindiving	etain a benefit by the mated to take 12 r idual case. Any co r, U.S. Patent and THIS ADDRESS	ne publ ninutes mment Fraden . SENI	lic which is to file (and to complete, includir s on the amount of ti- nark Office, U.S. Dep D TO: Commissioner	d by thing gath me you artmer for Pa	e USPTO to process) hering, preparing, and he require to complete at of Commerce, P.O. tents, P.O. Box 1450,

Alexandria, Virginia 22313-1450.

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.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
12/406,968	03/19/2009	Dave Leahy	WORLDS 003	6412		
35070 75	90 11/04/2011		EXAM	UNER		
ANATOLY S. W			NGUYEN, CAO H			
3525 DEL MAR H SAN DIEGO, CA	EIGHTS ROAD, #295 92130		ART UNIT	PAPER NUMBER		
5.1. 5.1. 5.1.			2171			
			DATE MAILED: 11/04/201	1		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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 disclosure of these records is required by the Freedom of Information Act.
- 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 inspection 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.

	Application No.	Applicant(s)
	12/406,968	LEAHY ET AL.
Notice of Allowability	Examiner	Art Unit
	Cao "Kevin" Nguyen	2171
	Cao "Kevin" Nguyen	2171
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this ago or other appropriate communication GHTS. This application is subject	oplication. If not included n will be mailed in due course. THIS
1. \square This communication is responsive to <u>8/31/11</u> .		
2. \square An election was made by the applicant in response to a rest requirement and election have been incorporated into this action.	riction requirement set forth during	the interview on; the restriction
3. A The allowed claim(s) is/are 4-20.		
 4. ☐ Acknowledgment is made of a claim for foreign priority unde a) ☐ All b) ☐ Some* c) ☐ None of the: 		
1. Certified copies of the priority documents have		
2. Certified copies of the priority documents have		
3. Copies of the certified copies of the priority doc	cuments have been received in this	national stage application from the
International Bureau (PCT Rule 17.2(a)). * Certified copies not received:		
· ——	of this assume wisetism to file a word.	
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the requirements
5. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give		
6. CORRECTED DRAWINGS (as "replacement sheets") must	be submitted.	
(a) \square including changes required by the Notice of Draftspers	on's Patent Drawing Review (PTO	9-948) attached
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the	Office action of
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in t		
 DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FC 		
Attachment(s)	_	
1. Notice of References Cited (PTO-892)	5. Notice of Informal	• •
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary Paper No./Mail Da	
Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	7. 🛛 Examiner's Amend	lment/Comment
 Examiner's Comment Regarding Requirement for Deposit of Biological Material 	_	ent of Reasons for Allowance
	9. Other	
/Cao "Kevin" Nguyen/ Primary Examiner, Art Unit 2171		
Thinary Examinor, Art Onic 2171		

U.S. Patent and Trademark Office PTOL-37 (Rev. 03-11)

03-11) Notice of Allowability

Part of Paper No./Mail Date 20111103

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Anatoly S. Weiser on 11/02/11.

Claims 18-20 have been added.

Claims 4, 11 and 15 have been amended.

4. (Currently Amended) A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the method comprising the steps of:

customizing, using a processor of a client device, an avatar in response to input by the first user:

receiving, by the client device, position information associated with fewer than all of the other user avatars in an interaction room of the virtual space, from a server process, wherein the client device does not receive position information of at least some avatars that fail to satisfy a participant condition imposed on avatars displayable on a client device display of the client device; of the other user avatars in the virtual space;

Application/Control Number: 12/406,968 Page 3

Art Unit: 2171

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

11. (Currently Amended) A client device for enabling a first user to interact with other users in a virtual space, each user being associated with a three dimensional avatar representing the user in the virtual space, the device comprising:

a memory storing instructions; and

a processor programmed using the instructions to:

create a custom avatar in response to input by the first user;

receive position information associated with fewer than all of the other user avatars in an interaction room of the virtual space, wherein the processor does not receive position information of at least some avatars of the other user avatars in the virtual space that fail to satisfy a participant condition imposed on avatars displayable on a display of the client device; and

determine a set of the other users' avatars displayable on a screen associated with the client device.

15. (Currently Amended) An article of manufacture comprising at least one memory storing computer code for enabling a first user to interact with other users in a virtual space, each

user of the first user and the other users being associated with a three dimensional avatar representing said each user in the virtual space, the computer code comprising instructions for:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars in an interaction room of the virtual space, from a server process, wherein the client device does not receive position information of at least some avatars that fail to satisfy a participant condition imposed on avatars displayable on a client device display of the client device; of the other user avatars in the virtual space;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

- 18. (New) The article of manufacture of claim 15, wherein the participant condition is based on avatar identifiers (IDs).
- 19. (New) The client device of claim 11, wherein the participant condition is based on avatar identifiers (IDs).
- 20. (New) The method of claim 4, wherein the participant condition is based on avatar identifiers (IDs).

REASONS FOR ALLOWANCE

Claims 4-20 are allowed over the prior art of records.

The following is an examiner's statement of reasons for allowance: Applicant has claimed

uniquely distinct features in the instant invention which are not found in the prior art either

singularly or in combination. They are customizing, using a processor of a client device, an

avatar in response to input by the first user; receiving, by the client device, position information

associated with fewer than all of the other user avatars in an interaction room of the virtual space,

from a server process, wherein the client device does not receive position information of at least

some avatars that fail to satisfy a participant condition imposed on avatars displayable on a client

device display of the client device; determining, by the client device, a displayable set of the

other user avatars associated with the client device display; and displaying, on the client device

display, the displayable set of the other user avatars associated with the client device display.

These features are not found or suggested in the prior art.

The closest prior arts, Shiio and Suzuki disclose a conventional animate characteristics

representing operators in virtual conference; either singularly or in combination, fail to anticipate

or render the above underline limitation obvious.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

356

Application/Control Number: 12/406,968

Art Unit: 2171

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao "Kevin" Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on (571)272-3721. 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.

/Cao "Kevin" Nguyen/ Primary Examiner, Art Unit 2171

Page 6

11/2/11



Application/Control No.	Applicant(s)/Pate Reexamination	ent under
12/406,968	LEAHY ET AL.	
Examiner	Art Unit	
Cao "Kevin" Nguyen	2171	

SEARCHED									
Class	Subclass	Date	Examiner						
715	706, 756 751-753 853-854 736	11/2/11	CN						

INTERFERENCE SEARCHED										
Class	Subclass	Date	Examiner							
	e searched rinted out	11/2/11	CN							

SEARCH NOTES (INCLUDING SEARCH STRATEGY)								
	DATE	EXMR						
east searched, npl and us-pgpub	11/2/11	CN						

U.S. Patent and Trademark Office

Part of Paper No. 20111103

Issue	Classif	ication

Application/Control No. 12/406,968	Applicant(s)/Patent under Reexamination LEAHY ET AL.
Examiner	Art Unit
Cao "Kevin" Nguyen	2171

						ISS	SUE	CL	AS	SIF	IC/						
			ORIGIN	AL								INTI	ERNATIONAL	CLASSIF	CATION	1	
	CLAS	3			SUBC	CLASS		L		CI	AIME	D			NO	N-CLAIME	.D
	715				7	06		G	6	F	15	5	/00				/
		CROS	S REFE	RENCE	S												
LASS	SI			E SUBC		ER BLO	CK)	G	6	F	13	3	/00				/
	715	7:	56										/				/
		1											/				/
		t											/				
		t															
		t															
_		_			_	т —						_					
														Total Cl	laims A	llowed:	17
(A:	ssistant	Exami	ner)	(Date)		4	/	Cao I	Nguy	/en/							
						,_					/D : :	,		O. Print C			O.G. Print Fig.
(Legal	Instrume	ents E	xamine	er) (D	ate)	(F	rimary E	xamın	er)		(Date))					
														1			1
\square	Claims I	renun	nbere	d in th	e sam	e orde	er as r	orese	nted	by a	oplica	ant	☐ CPA		⊠ ⊤	.D.	☐ R.1.4
_																	
Final	Original		Final	Original		Final	Original		Final	:	Original		Final	,	Final	Original	Final
ш	Ŏ		ш	ŏ		Ш	ŏ		"	. (ל		" č		"	Ŏ	" '
	1			31			61]		_	91		12			151	1
	3			32			62	-		_	92		12			152	1
	4			33 34			63 64	}		_	94		12			153 154	1
	5			35			65	İ		_	95		12			155	1
	6			36			66]		_	96		12	_		156	1
	7			37			67			_	97		12	_		157	1
	8			38 39			68 69	}		_	98		12			158 159	1
	10			40			70	j		_	00		13			160	1
	11			41			71]		_	01		13	— ∤		161	1
	12 13			42 43			72 73	{		_	02 03		13			162 163	1
	14			43			74	1			03		13			164	1
	15			45			75]		1	05		13			165	1
	16			46			76			1	06		13	6		166	1
	17 18			47 48			77 78	{			07 08		13			167 168	1
	19			48			79	1			09		13			169	1
	20			50			80	j			10		14			170	2
	21			51			81			1	11		14			171	2
	22			52			82	{			12		14		-	172	2
	23 24			53 54			83 84	{			13 14		14			173 174	2
	25			55			85	1			15		14			175	2
	26			56			86]		1	16		14	6		176	2
	1 07]			57			87	ļ			17		14			177	2
	27																
	28			58 59			88 89	-			18 19		14			178 179	2

U.S. Patent and Trademark Office

Part of Paper No. 20111103

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4002	condition with participant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:28
L2	860093	fail	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:29
L3	1053	1 and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:29
L4	12648	virtual adj space	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:29
L5	3	3 and 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:29
L6	29	"7181690"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:31
L7	2	"7181690".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/03 11:31
S1	2150	personal adj characteristic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:53
S2	426010	user adj interface	US-PGPUB; USPAT; USOCR;	OR	ON	2010/12/19 09:54

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S3	7871284	ascess\$3 or select\$3 or present\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:54
S4	730	S1 and S2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:55
S5	716	S3 and S4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:55
S6	841075	age or rank or gender	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:56
S7	557	S5 and S6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/12/19 09:56
S8	24566	transaction adj data	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:56
S9	35	S7 and S8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 09:57
S10	33	ascess\$3 and select\$3 and present\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S11	2150	personal adj characteristic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S12	426010	user adj interface	US-PGPUB; USPAT; USOCR;	OR	ON	2010/12/19 11:35

			FPRS; EPO; JPO; DERWENT;			
S13	730	S11 and S12	US-PGPUB; US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/12/19 11:35
S14	2150	personal adj characteristic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S15	426010	user adj interface	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S16	7871284	ascess\$3 or select\$3 or present\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/12/19 11:35
S17	730	S11 and S12	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/12/19 11:35
S18	716	S16 and S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S19	841075	age or rank or gender	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/12/19 11:35
S20	557	S18 and S19	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S21	24566	transaction adj data	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:35
S22	35	S20 and S21	US-PGPUB; USPAT; USOCR;	OR	ON	2010/12/19 11:35

			FPRS; EPO;			The state of the s
			JPO; DERWENT; IBM_TDB			
S25	1	S14 and 10	USPAT	OR	OFF	2010/12/19 11:36
S26	0	S14 and S10	USPAT	OR	OFF	2010/12/19 11:36
S27	30540	gui	USPAT	OR	OFF	2010/12/19 11:36
S28	60	S14 and S27	USPAT	OR	OFF	2010/12/19 11:36
S29	59	S13 and S28	USPAT	OR	OFF	2010/12/19 11:37
S30	42	S19 and S29	USPAT	OR	OFF	2010/12/19 11:37
S31	7	S21 and S30	USPAT	OR	OFF	2010/12/19 11:37
S32	18	("20020068500" "20020120474" "20020174073" "20050054381" "20060173556" "20060190809" "20060184800" "20070070038" "6850252").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:40
S33	716	S14 and S18	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:41
S34	716	S15 and S33	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:42
S35	716	S16 and S34	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:42
S36	38	S21 and S35	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:42
S37	38724	product adj information	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:44
S38	8	\$36 and \$37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/19 11:44

			DERWENT; IBM_TDB			***************************************
S39	2	S32 and S33	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:44
S40	2	S32 and S34	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:45
S41	1	S32 and S37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:45
S42	9	S32 and S19	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:46
S43	2	S11 and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:46
S44	1147	personal adj application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:48
S45	436	S12 and S44	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:48
S46	0	S32 and S45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:49
S47	1	S11 and S45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 11:49
S48	1	S22 and S32	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/19 11:50

			DERWENT; IBM_TDB			
S49	6	S12 and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:03
S50	6	S16 and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:03
S51	1	S11 and S50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:03
S52	4970	age and rank and gender	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:05
S53	83	S13 and S52	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:06
S54	0	S44 and S53	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:06
S55	103413	personal near30 application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:06
S56	13	S53 and S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/19 12:07
S57	21287	voice adj command\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:47
S58	85395	gui and object	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/30 12:47

			DERWENT; IBM_TDB			
S59	2183	S57 and S58	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:47
S60	2655	gui adj window	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:48
S61	83	S59 and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:48
S62	3376035	left or right near30 half adj monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:48
S63	39	S61 and S62	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:48
S64	6049687	upper or lower adj monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:49
S65	17	S63 and S64	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:49
S66	54959	voice adj recognition	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:58
S67	10	S65 and S66	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 12:58
S68	55140	voice adj recognition or voice adj command with gui and window	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/30 13:04

			DERWENT; IBM_TDB			;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
S69	18206	S62 and S68	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:04
S70	6432	S64 and S69	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:04
S71	282	S59 and S70	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:04
S72	54959	S66 and S68	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:16
S73	273	S71 and S72	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:17
S74	420	gui adj window near20 application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:17
S75	O	S73 and S74	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:17
S76	201439	gui adjn window near20 application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:17
S77	420	S74 and S76	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:17
S78	204688	gui adjn window near30 application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/30 13:18

			DERWENT; IBM_TDB			
S79	420	S77 and S78	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2010/12/30 13:18
			IBM_TDB			
S80	426	gui adj window near30 application	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:18
S81	9706	S64 and S66	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:18
S82	63	S80 and S81	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:18
S83	40	graphical adj application adj window	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:19
S84	0	S82 and S83	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:19
S85		graphical adjn application adjn window	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:19
S86	40	S83 and S85	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:19
S87	8	S68 and S86	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:20
S88	2	"6233559".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2010/12/30 13:22

			DERWENT; IBM_TDB	***************************************		***************************************
S89	2	"6813768".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:23
S90	2	"6233559".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:24
S91	2	"6025841".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:25
S92	2	"5838318".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:26
S93	2	"7461352".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:31
S94	2	"5890123".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:33
S95	2	"6424357".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:38
S96	2	"5974384".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:39
S97	2	"5191644".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/30 13:41
S98	2	"7181690".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/01/02 09:49

			DERWENT; IBM_TDB			
S99	2	"6219045".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 09:50
S100	2	"7493558".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 09:55
S101	1	"5347306".PN.	USPAT; USOCR	OR	OFF	2011/01/02 15:24
S102	1	"5736982".PN.	USPAT; USOCR	OR	OFF	2011/01/02 15:24
S103	1	"5491743".PN.	USPAT; USOCR	OR	OFF	2011/01/02 15:25
S104	758386	3-d or three-dimensional or 3d	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 15:33
S105	0	S103 and S104	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 15:33
S106	1	S102 and S104	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 15:33
S107	1	S101 and S104	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/01/02 15:33
S108	15	few adj avatar	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:40
S109	11	conference adj participant near30 avatar	**************************************	OR	ON	2011/03/24 09:41
S110	0	S108 and S109	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/03/24 09:41

			DERWENT; IBM_TDB			
S111	1470886	few adjn virtual adj avatar	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:41
S112	5	S109 and S111	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:41
S113	2	"6219045".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:43
S114	141	virtual adj avatar	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S115	6608344	less or few	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S116	95	S114 and S115	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S117	95	S111 and S116	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S118	56302	"715"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S119	19	S117 and S118	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:44
S120	58385	3-d or three-dimensional adj avatar\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/03/24 09:53

			DERWENT; IBM_TDB			
S121	11848	virtual adj space	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/03/24 09:53
			DERWENT; IBM_TDB			
S122	819	S120 and S121	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:53
S123	53474	client adj device	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:54
S124	20	S122 and S123	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:54
S125	294475	conferenc\$5 adjn participant adj avatar	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:58
S126	6237	S123 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:58
S127	38	S121 and S126	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 09:58
S128	1	"5793365".PN.	USPAT; USOCR	OR	OFF	2011/03/24 10:01
S129	6881	virtual adj world	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:15
S130	1485	S125 and S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:16
S131	164	S123 and S130	US-PGPUB; USPAT; USOCR;	OR	ON	2011/03/24 10:16

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S132	118	S111 and S131	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:16
S133	118	S125 and S132	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:16
S134	118	S123 and S133	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:16
S135	1470678	few or less adj avatar\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:17
S136	117	S134 and S135	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2011/03/24 10:17
S137	19	S118 and S136	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:17
S138	2	"5008853".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 10:20
S139	2	"5347506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 11:02
S140	2	"5347306".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/24 11:02
S141	2	"5491743".pn.	US-PGPUB; USPAT; USOCR;	OR	ON	2011/03/24 11:09

			FPRS; EPO; JPO; DERWENT; IBM_TDB		***************************************	
S142	2	client adj device adj avatar\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:17
S143	64070	client adj device adjn avatar\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S144	58061	"715"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S145	4771	S143 and S144	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S146	130817	"345"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2011/06/11 17:18
S147	253	S145 and S146	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S148	105709	"709"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S149	46	S147 and S148	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S150	12107	virtual adj space	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:18
S151	8	S149 and S150	US-PGPUB; USPAT; USOCR;	OR	ON	2011/06/11 17:19

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S152	1	"6820112".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:20
S153	1	"5956028".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:20
S154	1	"5659691".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:20
S155	1	"5659691".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:21
S156	1470	avatar\$	USPAT; USOCR	OR	OFF	2011/06/11 17:21
S157	0	S155 and S156	USPAT; USOCR	OR	OFF	2011/06/11 17:21
S158	1	"5491743".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:21
S159	1	"5347306".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:22
S160	1	"5347306".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:23
S161	0	S156 and S160	USPAT; USOCR	OR	OFF	2011/06/11 17:23
S162	55514	client adj device	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:24
S163	0	S160 and S162	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:24
S164	1470	S156 and S143	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:29
S165	192	S150 and S164	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:29
S166	525	display adj avatar\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/11 17:30
S167	23	S165 and S166	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/06/11 17:30

			DERWENT; IBM_TDB			
S168	1	"5577185".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:31
S169	1	"5577185".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:32
S170	1	"5907328".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:32
S171	1	"5880731".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:32
S172	1	"5682469".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:33
S173	1	"5617539".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:35
S174	1	"5257306".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:36
S175	1	"5572248".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:37
S176	1	"5613056".PN.	USPAT; USOCR	OR	OFF	2011/06/11 17:39

11/3/2011 11:32:44 AM

C:\ Users\ knguyen\ Documents\ EAST\ Workspaces\ 12406968.wsp

Ina	lex o	t Clai	ms

Application/Control No.	Applicant(s)/Pat Reexamination	ent under
12/406,968	LEAHY ET AL.	
Examiner	Art Unit	
Cao "Kevin" Nguyen	2171	

√ Rejected= Allowed

_	(Through numeral) Cancelled
_	Restricted

N	Non-Elected
ı	Interference

4	Appeal
0	Objected

							l			
										_
Cla	aim				[Date	9			
	_	_								
Final	Original	11/2/11								
造	ij	1/2								
	0	_								
	1	x								Н
<u> </u>	2	x	_	\vdash	\vdash	\vdash	\vdash		\vdash	Н
<u> </u>	3	_			\vdash	\vdash		Н	\vdash	Н
<u> </u>		x							\vdash	Н
1	4	=			_	_			<u> </u>	Н
2	5			_	_	_			_	Ш
3	6					_			_	Ш
4	7									Ш
5	8									
6	9									
7	10									П
12	11									П
8	12						П	П		П
9	13				\vdash	\vdash	H	H	\vdash	H
10	14		\vdash		\vdash	\vdash	H	Н	\vdash	Н
		-			\vdash	\vdash	H		\vdash	Н
14	15	<u> </u>	<u> </u>	-	-	<u> </u>	H		<u> </u>	Н
15	16	_	_	_	<u> </u>	<u> </u>	Ш	Ш	<u> </u>	Ш
16	17	_	_		$ldsymbol{ldsymbol{ldsymbol{eta}}}$	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Ш	Ш	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Ш
17	18	L	L	L	L					Ш
13	19									
11	20	=								
	21									П
	22				\vdash	\vdash			\vdash	П
\vdash	23		\vdash		\vdash	\vdash			\vdash	Н
—	24				\vdash	\vdash			\vdash	Н
<u> </u>	25		\vdash		┝	\vdash			\vdash	Н
<u> </u>	20				-	_			_	Н
	26				_	_			_	Ш
	27								_	Щ
	28									
	29									
	30									
	31									
	32									
	33									П
	34				\vdash	\vdash	Н	Н	\vdash	H
	35	\vdash	\vdash		\vdash	\vdash	H	Н	\vdash	Н
-		\vdash	\vdash		\vdash	\vdash	H	\vdash	\vdash	Н
<u> </u>	36	\vdash	\vdash	\vdash	\vdash	\vdash	\vdash	\vdash	\vdash	Н
<u> </u>	37	_	\vdash		\vdash	\vdash	H	Н	\vdash	Щ
	38		<u> </u>		<u> </u>	<u> </u>	L		<u> </u>	Щ
<u> </u>	39	_	_	_	_	_	Ш	Ш	_	Ш
	40									Ш
	41									
	42									П
	43									П
	44				\vdash	\vdash			\vdash	Н
	45	\vdash	\vdash	\vdash	\vdash	\vdash	Н	Н	\vdash	Н
\vdash	46				\vdash	\vdash	H	Н	\vdash	Н
<u> </u>		\vdash	\vdash	\vdash	\vdash	\vdash	Н	Н	\vdash	Н
<u> </u>	47	_	_	_	\vdash	\vdash	H	Н	\vdash	Н
<u></u>	48	_	<u> </u>	_	<u> </u>	<u> </u>	Ш	Ш	<u> </u>	Щ
	49	_			L	_			_	Ш
	50									

Claim				Г	Date	-			
				ı		Ī			П
Final	Original								
	51			\vdash					
	51 52 53			\vdash					Н
	53								
	54								П
	55			\vdash					
	56			\vdash					
	57								
	58								
	59								
	60								
	61								
	62								
	63								
	64								
	65								
	66								
	67								
	68								
	69								
	70								
	71 72 73								Щ
	72								Щ
	73			_					Щ
	74 75			_					
	/5								
	76 77			\vdash					Н
	78			┝					Н
	79								
	80			\vdash					
	81								
	82			\vdash					
	83								
	84								
	85								
	86								
	87								
	88								
	89								
	90								Щ
	91								
	92			_					
	93		\vdash	\vdash	_	\vdash	\vdash		Щ
	94			_					Н
	95		H	<u> </u>	<u> </u>	H			H
	96 97		\vdash	\vdash	-		\vdash		Н
	98		Н	\vdash	\vdash	Н	H		Н
	98	\vdash	H	\vdash	\vdash		H	-	H
	100		Н	\vdash		Н	Н		Н
	100								ш

Claim					-) ata				_
Uli			ı -			Date	-			
Final	Original									
	101		\vdash							
	102		\vdash							
	103									
	104									
	105		\vdash							
	106		\vdash			П				
	107		Г			П				
	108									
	109									
	110					П				
	111									
	112									
	113									
	114									
	115									
	116									
	117		L							
	118									
	119									
	120									
	121									
	122									
	123									
	124									
	125									
	126									
	127									
	128									
	129									
	130									
	131									
	132									
	133									
	134		_			Щ		Ш		
	135		<u> </u>			Щ		Ш		
	136	<u> </u>	<u> </u>	L	_	$oxed{}$		L	_	
	137		_			Щ				Ш
	138		_	L		Щ		_		Ш
	139	_	<u> </u>			\vdash				
	140		<u> </u>			\vdash				
	141		<u> </u>			\vdash				
	142		_			\vdash				
	143	<u> </u>	\vdash	\vdash	_	\vdash		H	_	
	144		\vdash		_	\vdash			_	H
	145		_		_	\vdash			_	H
	146	_	\vdash		_	\vdash			_	
	147	_	\vdash	H	_	\vdash			_	
	148	-	\vdash	\vdash	_	\vdash		Н	_	
	149	_	_	H	_	\vdash		H	_	
	150	<u> </u>	<u> </u>							

U.S. Patent and Trademark Office

Part of Paper No. 20111103

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notificat	correspondence includir d below or directed oth ions	ng the Patent, advance on herwise in Block 1, by (a	rders and notification of a a) specifying a new corres	naintenance fees w spondence address;	ill be i and/or	mailed to the current of (b) indicating a separ	correspondence address as ate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) 35070 7590 11/04/2011 ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130				(s) Transmittal. Thi ers. Each additional e its own certificate Cert reby certify that thi	s certifi l paper, of mai t ificate is Fee(s	icate cannot be used for such as an assignment ling or transmission. of Mailing or Transmittal is being	domestic mailings of the rany other accompanying it or formal drawing, must mission deposited with the United class mail in an envelope above, or being facsimile indicated below.
							(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
12/406,968 TITLE OF INVENTION:	03/19/2009 : SYSTEM AND METH	OD FOR ENABLING U	Dave Leahy SERS TO INTERACT IN	A VIRTUAL SPA		WORLDS 003	6412
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0		\$1170	02/06/2012
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
NGUYEN	, CAO H	2171	715-706000				
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.	ondence address (or Cha 1/122) attached. cation (or "Fee Address" 2 or more recent) attached ND RESIDENCE DATA ess an assignee is ident n in 37 CFR 3.11. Comp GNEE	nge of Correspondence Indication form d. Use of a Customer	2. For printing on the p (1) the names of up to or agents OR, alternati (2) the name of a single registered attorney or a registered patent attorney or the part of the part o	o 3 registered paten wely, e firm (having as a agent) and the name rneys or agents. If a printed.	members of upno nam	er a 2 Acuity L. o to e is 3 entified below, the do	S. Weiser, Esq. aw Group cument has been filed for
Please check the appropri	ate assignee category or	categories (will not be pr	inted on the patent): \Box	Individual 🖺 Co	rporati	on or other private gro	up entity Government
4a. The following fee(s) a	o small entity discount p		o. Payment of Fee(s): (Plei A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo	rd. Form PTO-2038	is attac	ched.	hown above) iciency, or credit any extra copy of this form).
11	s SMALL ENTITY statu	ıs. See 37 CFR 1.27.	☐ b. Applicant is no lon		L ENT		
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if requeecords of the United Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regi	stered a	ttorney or agent; or the	e assignee or other party in
Authorized Signature				DateNo	vembe	er 8, 2011	
Typed or printed name	Anatoly S. Wei	ser		Registration N	o. 43,	229	
This collection of informa an application. Confident submitting the completed	ation is required by 37 C iality is governed by 35 I application form to the	FR 1.311. The information U.S.C. 122 and 37 CFR USPTO. Time will vary	on is required to obtain or a 1.14. This collection is est depending upon the indicate of the collection of the collecti	retain a benefit by the timated to take 12 revidual case. Any co	ne publ ninutes mment	ic which is to file (and to complete, including s on the amount of tim	by the USPTO to process) g gathering, preparing, and he you require to complete extreme of Commerce, P.O.

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, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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.

Electronic Patent Application Fee Transmittal							
Application Number:	12	406968					
Filing Date:	19-	-Mar-2009					
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE						
First Named Inventor/Applicant Name:	Da	ve Leahy					
Filer:	Anatoly Weiser.						
Attorney Docket Number:	Attorney Docket Number: WORLDS 003						
Filed as Small Entity	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:	Petition:						
Patent-Appeals-and-Interference:							
Post-Allowance-and-Post-Issuance:							
Utility Appl issue fee		2501	1	870	870		
Publ. Fee- early, voluntary, or normal		1504	1	300	300		

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	1170

Electronic Ack	Electronic Acknowledgement Receipt				
EFS ID:	11364005				
Application Number:	12406968				
International Application Number:					
Confirmation Number:	6412				
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Customer Number:	35070				
Filer:	Anatoly Weiser.				
Filer Authorized By:					
Attorney Docket Number:	WORLDS 003				
Receipt Date:	08-NOV-2011				
Filing Date:	19-MAR-2009				
Time Stamp:	18:03:05				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1170
RAM confirmation Number	4828
Deposit Account	503196
Authorized User	

File Listing:

Document	Document Description	File Name	File Size(Bytes)/	Multi	Pages	l
Number	Document Description	riie Name	Message Digest	Part /.zip	(if appl.)	l

1	Issue Fee Payment (PTO-85B)	Issue Fee-Part B.pdf	98654	no	1
'	issue reer dyment (170 05b)	issuel ee l'altis,pui	9db46d64ab3cac4cb9f9e2040adc7e40fb0 46061		'
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31936	no	2
_	rec wondineer (5500)	·	b4fd1615de47e2a4888a704b0b5fd2da2d8 b1d31		
Warnings:					
Information					
	Total Files Size (in bytes)			30590	

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.

12406968 Application Number Filing Date 2009-03-19 **INFORMATION DISCLOSURE** First Named Inventor Leahy, Dave **STATEMENT BY APPLICANT** Art Unit 2173 (Not got submission under 37 CFR 1.99) **Examiner Name** Nguyen, Cao H. to document, AP019CON3 Attorney Docket Number /M.C.R./

11/15/2	11/15/2011											
/K.N./	31	6	229533	B1	2001-05	5-08	FARMER et al		0			
000000000000000000000000000000000000000	32	6	734885	B1	2004-05	5-11	MATSUDA		0			
	33	6	961755	B2	2005-01	I-11	MATSUDA		0			
/K.N./	34		RE35,314 035314	E	1996-08	3-20	LOGG		0			
If you wis	h to ac	dd a	dditional U.S. Pater	nt citatio	n inform	ation pl	ease click the	Add button.		Add		
				U.S.P	ATENT	APPLIC	CATION PUBL	LICATIONS		Remove		
Examiner Initial*	Cite I	Vo	Publication Number	Kind Code ¹	Publica Date	ation	Name of Patentee or Applicant of cited Document		Releva		ines where es or Relev	
	1											
If you wis	h to ac	dd a	dditional U.S. Publi	shed Ap	plication	citation	n information p	olease click the Add	button	Add		
					FOREIG	GN PAT	ENT DOCUM	ENTS		Remove		
Examiner Initial*	Cite No		reign Document mber ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patented Applicant of cited Document	or v	vhere Rele	or Relevant	T5
/K.N./	1	199	95-08793	WO		A1	1995-03-30	DURWARD et al.				
/K.N./	2	199	95-10157	WO		A1	1995-04-13	LUDWIG et al.				



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/406 968	12/20/2011	8082501	WORLDS 003	6412

35070 7590 11/30/2011

ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Dave Leahy, Oakland, CA; Judith Challinger, Santa Cruz, CA; B. Thomas Adler, San Francisco, CA; S. Mitra Ardon, San Francisco, CA;

PTO/AIA/123 (11-08)

Approved for use through 11/30/2014. OMB 0651-0035 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are r

CHANGE OF CORRESPONDENCE ADDRESS Patent

Address to: Mail Stop Post Issue Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

equired to respond to a collection	<u>n of information unless it displavs a valid OMB control num</u> ber.
Patent Number	8,082,501
Issue Date	December 20, 2011
Application Number	12/406,968
Filing Date	March 19, 2009
First Named Inventor	Dave Leahy
Attorney Docket	Worlds003

Please change the Correspondence Address for the above-identified patent to:				
The address associated with Customer Number:				
OR				
Firm or Individual Name Susman Godfrey LLP, Attention: Ryan C	Caughey, Esq.			
1000 Louisiana St. , Suite 500				
Address				
City HOUSTON	State TEXAS	ZIP 77002		
Country				
Telephone 713.653.7823 Email rcaughey@susmangodfrey.com				
This form cannot be used to change the data associated with existing Customer Number use "Request for Customer Numb		ne data associated with an		
This form will not affect any "fee address" provided for the ab Address Indication Form" (PTO/SB/47).	ove-identified patent. To change a	"fee address" use the "Fee		
I am the: Patentee. If the Patentee was not the applicant for patent (37 CFR 1.42), then a Statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is enclosed or was filed on See 37 CFR 3.71.				
Attorney or agent of record. Registration Numbe	r <u>43,229</u> .			
Patent practitioner acting in a representative capacity whose correspondence address is the correspondence address of record. Notice has been given to the patentee or owner. Registration Number 43,229				
Signature /Anatoly S. Weiser/				
Typed or Printed Name Anatoly S. Weiser				
Date October 12, 2012	Telephone 858-720)-9431		
NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.				
*Total of forms are submitted.				

This collection of information is required by 37 CFR 1.33. 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 3 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: Mail Stop Post Issue, 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.

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:

- 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 disclosure of these records is required by the Freedom of Information Act.
- 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.
- 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 inspection or an issued patent.
- 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.

Electronic Acl	Electronic Acknowledgement Receipt				
EFS ID:	13978706				
Application Number:	12406968				
International Application Number:					
Confirmation Number:	6412				
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE				
First Named Inventor/Applicant Name:	Dave Leahy				
Customer Number:	35070				
Filer:	Anatoly Weiser.				
Filer Authorized By:					
Attorney Docket Number:	WORLDS 003				
Receipt Date:	12-OCT-2012				
Filing Date:	19-MAR-2009				
Time Stamp:	20:35:29				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Information:

Submitted with Payment		no				
File Listing:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	Ch	Change Of Correspondence Add ress To Sussman.pdf	277528	no	2
'				3c9e91e4550bc1f32d0c54d308752d91526 3ee32		
Warnings:						

387

277528

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/123 (11-08) Approved for use through 11/30/2011. OMB 0651-0035

Under the Paneswork Reduction Act of 1995, no persons are

CHANGE OF CORRESPONDENCE ADDRESS Patent

Address to: Mail Stop Post Issue Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

recriticed to respond to a collec-	tion of information unless it displays a valid OMS control number
Patent Number	8.082,501
Issue Date	20 December 2011
Application Number	12/406,968
Filing Date	19 May 2009
First Named Inventor	Dave LEAHY
Attorney Docket	Worlds003

Please change the Co		
Please change the Correspondence Address fo		
The address associated with Customer	Number:	
OR		
Firm or		
Individual Name Feder Kaszovitz LLP; A	TTN: Irving Rothstein, Esq.	
845 Third Avenue		
Address		
City New York	State NY	ZIP 10022-6601
Country US		
Telephone (212) 888-8200 x:5413	(rothetein@fodko	7.00
	Email frothstein@fedkas	
This form cannot be used to change the data assessiting Customer Number use "Request for Cus	sociated with a Customer Number. To	change the data associated with an
	content Number Data Change" (PTO/S	B/124).
This form will not affect any "fee address" provide Address Indication Form" (PTO/SB/47).	ed for the above-identified patent. To	change a "fee address" use the "Fee
I am the:		·
r		
L_J Patentee.		
Assignee of record of the entire intere	est. See 37 CFR 3.71.	
Statement under 37 CFR 3.73(b) is e	nclosed. (Form PTO/SB/96).	
Attorney or agent of record. Registrat	ion Number	
The Time		
Signature 1000 /1000 Typed or 1000 Inc.		
Printed Name Thomas Kidnin		
Date 4/1/13	Tolonkan	(617) 803-0004
NOTE: Signatures of all the inventors or assignees of re if more than one signature is required, see below*.	cord of the entire interest or their represen	tative(s) are required. Submit multiple forms
*Total offorms are submitted.	***************************************	

This collection of information is required by 37 CFR 1.83. 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 1.1 and 1.34. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to 86 by 18710. These was vary depending upon the individual case. Any comments on the aircsunt 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. Desarthment of Commence, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Post Issue, 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.

Approved for use through 07/31/2012. 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 displays a valid OMB control number.

STAT	EMENT UNDER 37 CFR 3.73(b)
Applicant/Patent Owner: Worlds Inc.	
	Filed/Issue Date: 20 December 2011
Titled: System and method for enabling users	
Worlds Inc.	, a corporation
(Name of Assignee)	(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.
states that it is:	
1. X the assignee of the entire right, title, and i	nterest in;
2. an assignee of less than the entire right, t (The extent (by percentage) of its owners	itle, and interest in hip interest is%); or
3. the assignee of an undivided interest in the	ne entirety of (a complete assignment from one of the joint inventors was made)
the patent application/patent identified above, by virtu	ue of either:
A. An assignment from the inventor(s) of the the United States Patent and Trademark copy therefore is attached.	e patent application/patent identified above. The assignment was recorded in Office at Reel 029966 , Frame 0814 , or for which a
OR	A Company of the Comp
L	patent application/patent identified above, to the current assignee as follows:
	To:
	the United States Patent and Trademark Office at Frame, or for which a copy thereof is attached.
	To
	the United States Patent and Trademark Office at Frame, or for which a copy thereof is attached.
With the second	To:
	the United States Patent and Trademark Office at
Reel:	Frame or for which a copy thereof is attached.
Additional documents in the chain of title	e are listed on a supplemental sheet(s).
As required by 37 CFR 3.73(b)(1)(i), the docu	umentary evidence of the chain of title from the original owner to the assignee was, ation pursuant to 37 CFR 3.11.
INOTE: A separate copy (i.e. a true copy of	the original assignment document(s)) must be submitted to Assignment Division in assignment in the records of the USPTO. <u>See</u> MPEP 302.08]
The undersioned (whose title is supplied below) is au	41113
Signature	Date
Thomas Kidrin	President and CEO
Printed or Typed Name	Title

This collection of information is required by 37 CFR 3.73(b). 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, presenting, and submitting this completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require by complete this form angles suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commence, P.O. 80x 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.

Electronic Acknowledgement Receipt				
EFS ID:	15465757			
Application Number:	12406968			
International Application Number:				
Confirmation Number:	6412			
Title of Invention:	SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE			
First Named Inventor/Applicant Name:	Dave Leahy			
Correspondence Address:	Susman Godfrey LLP Attention: Ryan Caughey, Esq. 1000 Louisiana St. Suite 500 Houston TX 77002 US (713)653-7823 rcaughey@susmangodfrey.com			
Filer:	Anatoly Weiser./Sean Taylor			
Filer Authorized By:	Anatoly Weiser.			
Attorney Docket Number:	Worlds003			
Receipt Date:	09-APR-2013			
Filing Date:	19-MAR-2009			
Time Stamp:	02:46:08			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

Submitted with Payment	no
File Listing:	

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	Worlds003 Cover.pdf	28502	no	2
		// o// d33335	486db16168b044c529a03ba8549b825611 21e521	6	
Warnings:					
Information:					
2	Change of Address	8082501.pdf	202975	no	2
			b56020d69898ac5436d18827fce00b3a40b 0f2e0		
Warnings:					
Information:					
Total Files Size (in bytes):			23	31477	

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: LEAHY, et al.

Serial No.: 12/406,968 **Filed:** 19 March 2009

For: System and method for enabling users to

interact in a virtual space

Docket No: Worlds003

Patent No.: 8,082,501

Issue Date: 20 December 2011

AMENDMENT AND RESPONSE

Mail Stop: Post Issue

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

Dear Sir:

Applicant herein changes the correspondence address. Change of Correspondence Address (PTO/SB/123) and Statement Under 37 CFR 3.73(b) (PTO/SB/96) forms are attached. No fees are believed due in connection with this filing. Nonetheless, the Office is hereby authorized to charge any required fees for the filing of these forms, to deposit account no. 50-3196.

• **Remarks** begin on page 2 of this paper.

CERTIFICATE OF EFS FILING (37 CFR 1.8(a))

I hereby certify that this paper (along with anything referred to as being attached) is being submitted via the PTO's EFS on the date shown below and is addressed to: Mail Stop: MISSING PARTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

09 April 2013
Date of Transmission

/Sean Taylor/ Typed Name: Sean Taylor

USSN 12/406,970 Worlds004

REMARKS

Concluding Remarks

Should any matter arise regarding the forms being submitted herewith that can be addressed telephonically, the Examiner is encouraged to telephone the undersigned to address and resolve the same.

Respectfully submitted,

Date: _09 April 2013_ By: _/Anatoly S. Weiser/_

3525 Del Mar Heights Road, #295 San Diego, CA 92130

Telephone: (858) 720-8631

ANATOLY S. WEISER, ESQ. Attorney for Applicant Registration No.: 43,229 E-Mail: aw@IPLCounsel.com