

Electronic Patent Application Fee Transmittal

Application Number:				
Filing Date:				
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:	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

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

Electronic Acknowledgement 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:	
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Receipt Date:	19-MAR-2009
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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)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Preliminary Amendment	AmendmentPreliminary-Image.pdf	761720 0424bfc1e857672985396f31bd032713eb4458d2	no	9
Warnings:					
Information:					
2	Petition for review by the Office of Petitions.	PetitionReAbsentInventorPlusPetitionFromGrandparent-Image.pdf	2013749 95f886115779dbe9f7734ebc9562000829868add	no	5
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73(b).	Rule3dot73bStatement-Image.pdf	356678 097c812e8abe8905655b572e74dc7654763def48	no	1
Warnings:					
Information:					
4	Oath or Declaration filed	DeclarationFromParent-Image.pdf	759851 a17c033e01002f886be1f4cf606b98a310805112	no	4
Warnings:					
Information:					
5		Application-Image.pdf	11306775 3740e051516c4138e8b229220b8bd7ac8fb48427	yes	41
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	28	
	Appendix to the Specification		29	33	
	Claims		34	35	
	Abstract		36	36	
	Drawings-only black and white line drawings		37	41	
Warnings:					
Information:					
6	Fee Worksheet (PTO-06)	fee-info.pdf	36883 e712adff8acc743af1629f31d806f1a6214c6516	no	2
Warnings:					

Information:	
Total Files Size (in bytes):	15235656
<p>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.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>	

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/

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
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(858) 720-9431



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United States Patent and Trademark Office
Washington, D.C. 20231
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Paper No. 29

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SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS

In re Application of	:
Leahy, Challenger, Adler, and Ardon	:
Application No. 08/747,420	: DECISION ACCORDING STATUS
Filed: 12 November, 1996	: UNDER 37 CFR 1.47(a)
Attorney Docket No. 17376-5	:

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.

¹A 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 last known address of the non-signing inventor.

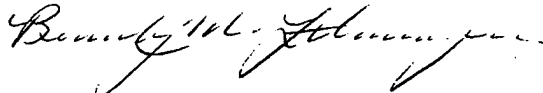
Application No. 08/747,420

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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



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Paper No. 30

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**SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS**

S. Mitra Ardon
1056 Noe
San Francisco, 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

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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.

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Leahy et al

Application No./Patent No.: TBD Filed/Issue Date: November 2, 2006

Entitled: Scalable Virtual World Chat Client-Server System

Worlds.com, Inc, a Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- 1. the assignee of the entire right, title, and interest; or
- 2. an assignee 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 identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 008385, Frame 0125, or for which a copy thereof is attached.

008385 0161
01136 0645

OR

B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____
The document was recorded in 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 are listed on a supplemental sheet.

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Thomas Kildin

Signature

November 2, 2006

Date

Thomas Kildin

Printed or Typed Name

(617) 725-8900

Telephone Number

CEO

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, 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.

BEST AVAILABLE COPY

DECLARATION

As below named inventor, I declare that

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 application(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:

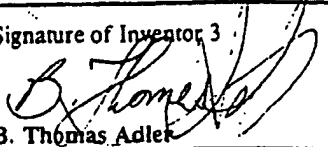
Application No.	Date of Filing	Status		
		Patented	Pending	Abandoned
		___	___	___
		___	___	___

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

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

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

I further declare that all statements made herein of my own knowledge are true and that I believe the statements made herein 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, both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

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

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Signature of Inventor 1 Dave Leahy <i>Dave Leahy</i>	Signature of Inventor 2 Judith Challenger	Signature of Inventor 3 B. Thomas Adler
Date 11/11/96	Date	Date
Signature of Inventor 4 S. [Mitra] Ardon		
Date	Date	Date

(Page 2 of 2)

p:1017376:0005:001-decl

SCALABLE VIRTUAL WORLD CHAT CLIENT-SERVER SYSTEM

5

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.

5 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.

10 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.

30 BRIEF DESCRIPTION OF THE DRAWINGS

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

35 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.

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 "out 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.

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 controlled by operation systems such as the Windows® program which runs under the MS-DOS operating system available from Microsoft Corporation, the Macintosh® 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.

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

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.

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 ("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.

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 below. If there are less than N avatars in a room which does not have open doors or transparent walls and client 60 has not
10 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.

Generally, the limit set by server 61 of N avatars and the limit set by client 60 of N' avatars control how many
15 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
20 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. To prevent this problem, user A might have a way to filter out
25 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. That entry indicates where the remote avatar is (its position), its
30 orientation, a pointer to an avatar image, and possible other data about the avatar such as its user's ID and name. The 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
35 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. The 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 $360 \cdot i / M$ 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.

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 (F^2, 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 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
10 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
15 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
20 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.).

25 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
30 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
35 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).

The control protocol is used by client 60 to report the location and state information, such as "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 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.

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. These 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.. The format of a control packet is shown in Table 1.

TABLE 1.

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

30 "UInt8" is an 8-bit unsigned integer. "Ostring" is a byte 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

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. The form of the command is exemplified by the following command to
 5 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 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
 15 shown), one for the CO object ID, one for the command type and twelve for the three abbreviated commands. Note that the "S>C" indicator is not part of the control packet. The position of the boundaries between commands (indicated above with brackets, which are not actually communicated) is
 20 inferred from the fact that the SHORTLOCCMD command type 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
 30 herein are shown in a readable form, however when transmitted over network connection 80, the control packets are compacted using the values shown in Appendix A.

35 The following examples show various uses of control packets. In the following sequences, a line beginning with "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:

10 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):

25 S>C FF 0D 06 Maclen 05

The following is a control packet containing a chat message:

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

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:

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

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:

20 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
- 5 - 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

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

- 15 - 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
- 20 - 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.
- 25

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,

35

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:

5

```
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
```

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.

15

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:

25

```
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:

30

```
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

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:

5 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

15 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.

20 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.

30 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.

35 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.

5 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. For example, the control packet:

PROPREQCMD VAR_BITMAP

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 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. Where 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 "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.

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. This square bounding box is then subdivided into a set of square cells. Each user is placed in exactly one square. Then, for 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

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

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

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.

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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.

30

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

5 Valid CommandTypes are integers between 0 and 255. Several of
 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.

Basics

15 a | b = Either a or b.

"abc" = The exact string of characters a, b and c in the order shown.

a+ = One or more occurrences of a.

20 a* = Zero or more occurrences of a.

10 = A number 10. In the ASCII protocol, this is the ASCII
 string "10", in the binary form, it is a byte with a value of
 10.

25 N..M = A numerical range from N to M.
 Equivalent to: N | N+1 | N+2 | ... | M-1 | M

Command Structures

30 Packet = PktSize Message

PktSize = UInt8 (size includes PktSize field)

35 Message = ObjID Command

ObjID = LongObjID | ShortObjID

40 LongObjID = OString

ShortObjID = UInt8

Command = CommandType CommandData

45 CommandType = UInt8

{Other commands might be added to these:}

50 Command = LongLocationCommand
 ShortLocationCommand
 StateCommand
 PropertyCommand
 PropertyRequestCommand
 55 CombinedCommand
 RoomChangeCommand
 SessionInitCommand
 SessionExitCommand
 ApplicationInitCommand
 60 ApplicationExitCommand
 DisappearActorCommand
 AppearActorCommand
 RegisterObjIdCommand
 TeleportCommand
 65 TextCommand
 ObjectInfoCommand
 LaunchAppCommand
 UnknownCommand

```

| WhisperCommand
| StateRequestCommand

```

```

5  TeleportCommand      = TELEPORTCMD NewRoom ExitType EntryType
   Location

   RoomChangeCommand   = ROOMCHNGCMD NewRoom Location
10  LongLocationCommand = LONGLOCCMD Location
   DisappearActorCommand = DISAPPEARACTORCMD
   AppearActorCommand  = APPEARACTORCMD NewRoom Location
15  Location            = X Y Z Direction
   X, Y, Z, Direction  = SInt16
20  StateCommand        = STATECMD SetFlags ClearFlags
   SetFlags, ClearFlags = UInt32
   PropertyCommand     = PROPCMD Property+
25  PropertyRequestCommand = PROPREQCMD VariableID*
   StateRequestCommand = STATEREQCMD
30  Property            = VariableID VariableValue
   VariableID          = ShortVariableId | LongVariableId
   ShortVariableId     = UInt8
35  LongVariableId      = OString
   VariableValue       = String
40  ShortLocationCommand = SHORTLOCCMD DeltaX DeltaY DeltaO
   DeltaX, DeltaY      = SByte
   DeltaO              = SByte (plus 128 to -128 degrees)
45  CombinedCommand     = CombinedLocationCommand
   CombinedAppearCommand = CombinedAppearCommand
   CombinedTeleportCommand = CombinedTeleportCommand
   CombinedDisappearCommand = CombinedDisappearCommand
50  UnknownCombinedCommand
   CombinedLocationCommand = SHORTLOCCMD AbbrevLocCommand+
   AbbrevLocCommand       = ShortObjID DeltaX DeltaY DeltaO
55  CombinedAppearCommand = APPEARACTORCMD AbbrevAppearCommand+
   AbbrevAppearCommand    = ShortObjID NewRoom Location
60  CombinedDisappearCommand = DISAPPEARACTORCMD AbbrevDisappearCommand+
   AbbrevDisappearCommand = ShortObjID
   CombinedTeleportCommand = TELEPORTCMD AbbrevTeleportCommand+
65  AbbrevTeleportCommand = ShortObjID NewRoom ExitType
   EntryType Location
   [for now:]
   UnknownCombinedCommand = 0..3, 5..10, 13..17, 19..255

```

	NewRoom	= UInt16
	ExitType, EntryType	= UInt8
5	SessionInitCommand	= SESSIONINITCMD Property+
	SessionExitCommand	= SESSIONEXITCMD Property+
10	ApplicationInitCommand	= APPINITCMD Property+
	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, 20..255
25	String	= StringSize Char*
	StringSize field)	= UInt8 (size of string EXCLUDING StringSize field)
30	Char	= C datatype char
	UInt32	= 0..4294967299 (32-bit unsigned)
35	SInt32	= -2147483650..2147483649 (32-bit signed value)
	UInt16	= 0..65535 (16-bit unsigned value)
40	SInt16	= -32768..32767 (16-bit signed value)
	UInt8	= 0..255 (8-bit unsigned value)
45	SByte	= -128..127 (8-bit signed value)
	LONGLOCCMD	= 1
	STATECMD	= 2
	PROPCMD	= 3
	SHORTLOCCMD	= 4
50	ROOMCHNGCMD	= 5
	SESSIONINITCMD	= 6
	SESSIONEXITCMD	= 7
	APPINITCMD	= 8
	APPEXITCMD	= 9
55	PROPREQCMD	= 10
	DISAPPEARACTORCMD	= 11
	APPEARACTORCMD	= 12
	REGOBJIDCMD	= 13
	TEXTCMD	= 14
60	LAUNCHAPPCMD	= 16
	WHISPERCMD	= 17
	TELEPORTCMD	= 18
	STATEREQCMD	= 19
65	CLIENT	= 1
	CO	= 254
	PO	= 255

Appendix B - Additional Control packet Examples

B.1. State and Property Changes

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_APPNAME = 1 // Name of Application to run
VAR_USERNAME = 2 // User's id.
VAR_PROTOCOL = 3 // Version of protocol used by client (int)
VAR_ERROR = 4 // Used in error returns to give error type
VAR_BITMAP = 5 // Filename of Bitmap
VAR_PASSWORD = 6 // User's password
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 PROPREQCMD 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)
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

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

Currently defined naks include:

* ACK	0	It's OK
* NAK_BAD_USER	1	User name already in use
* NAK_MAX_ORDINARY	2	Too many ordinary users
* NAK_MAX_PRIORITY	3	Too many priority users
* NAK_BAD_WORLD	4	World doesn't exist
* NAK_FATAL	5	Fatal error (e.g. can't instantiate user)
* NAK_BAD_PROTOCOL	6	Client running old or wrong protocol
* NAK_BAD_CLIENTSW	7	Client running old, or wrong version
* NAK_BAD_PASSWD	8	Wrong password for this user
* NAK_CALL_BILLING	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"

WHAT IS CLAIMED IS:

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

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
3 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.

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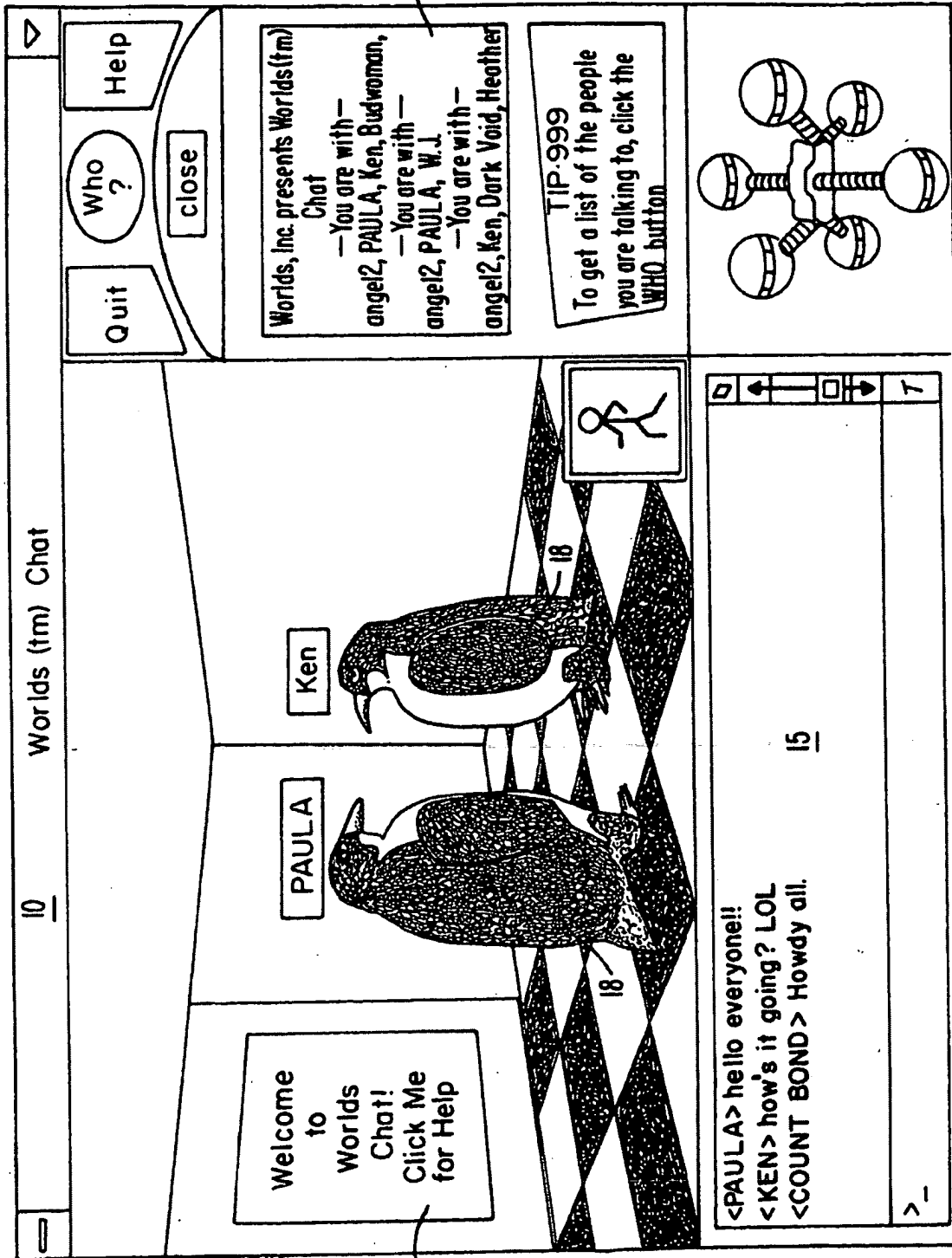


FIG. 1.

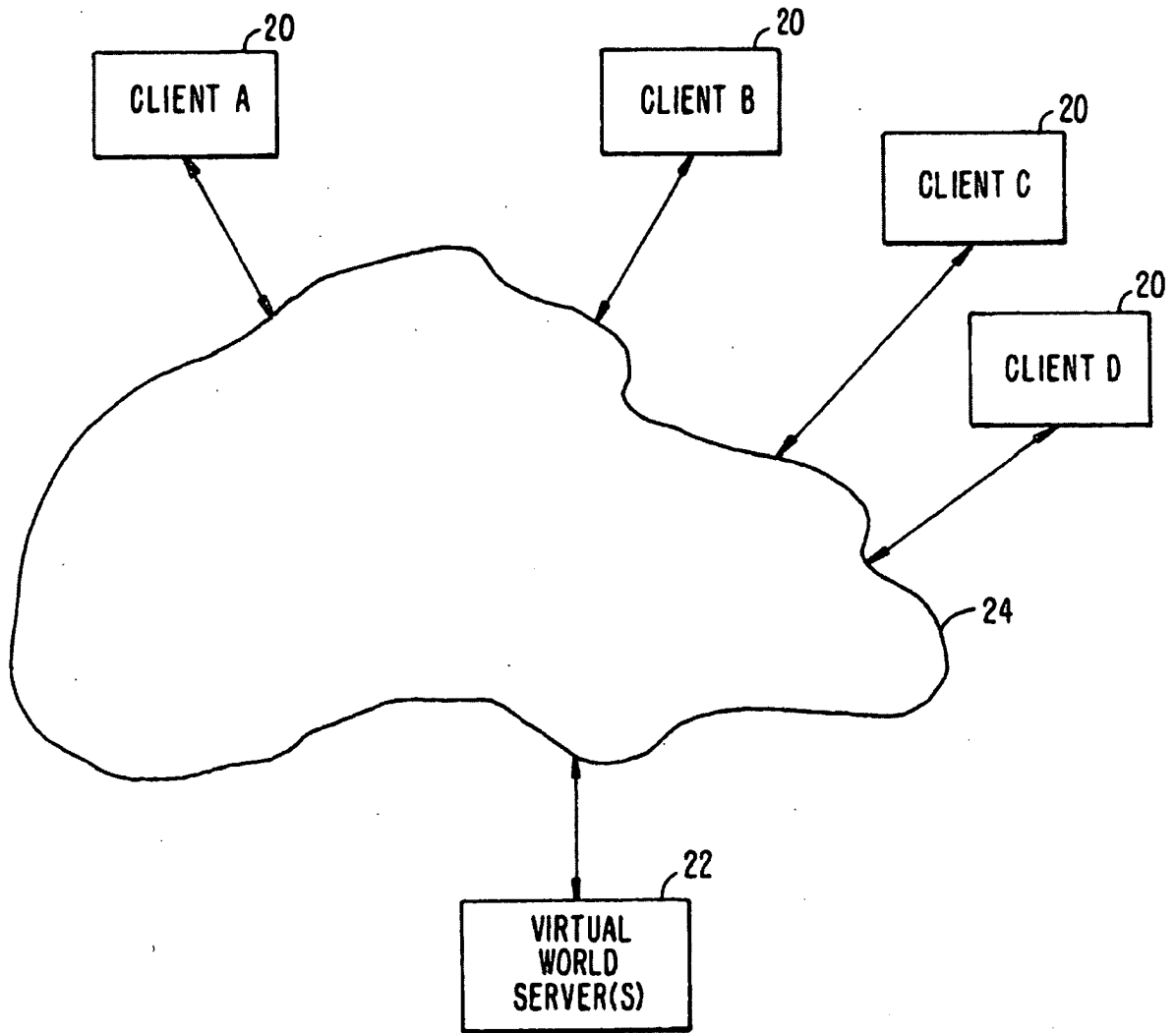


FIG. 2.

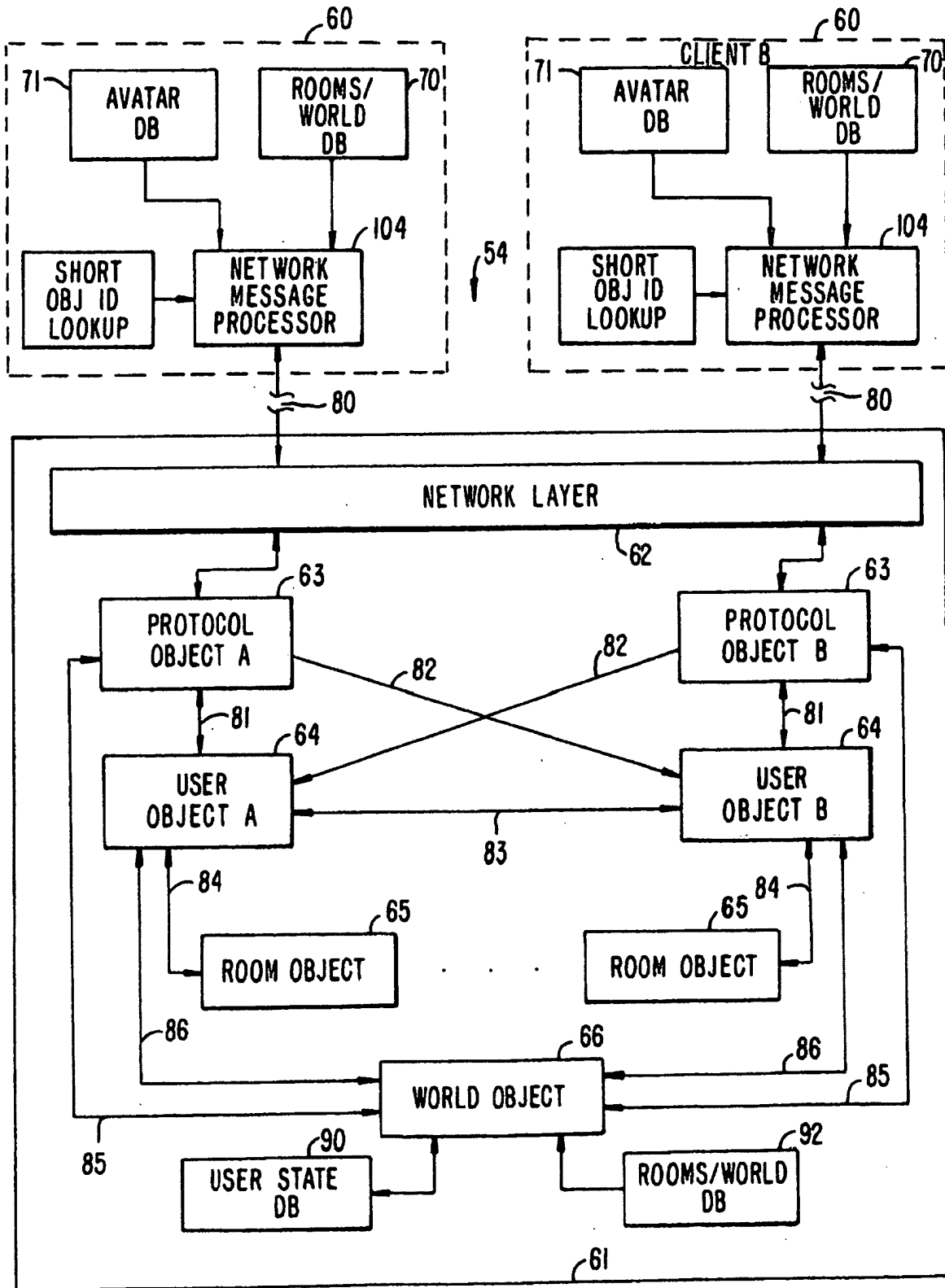


FIG. 3.

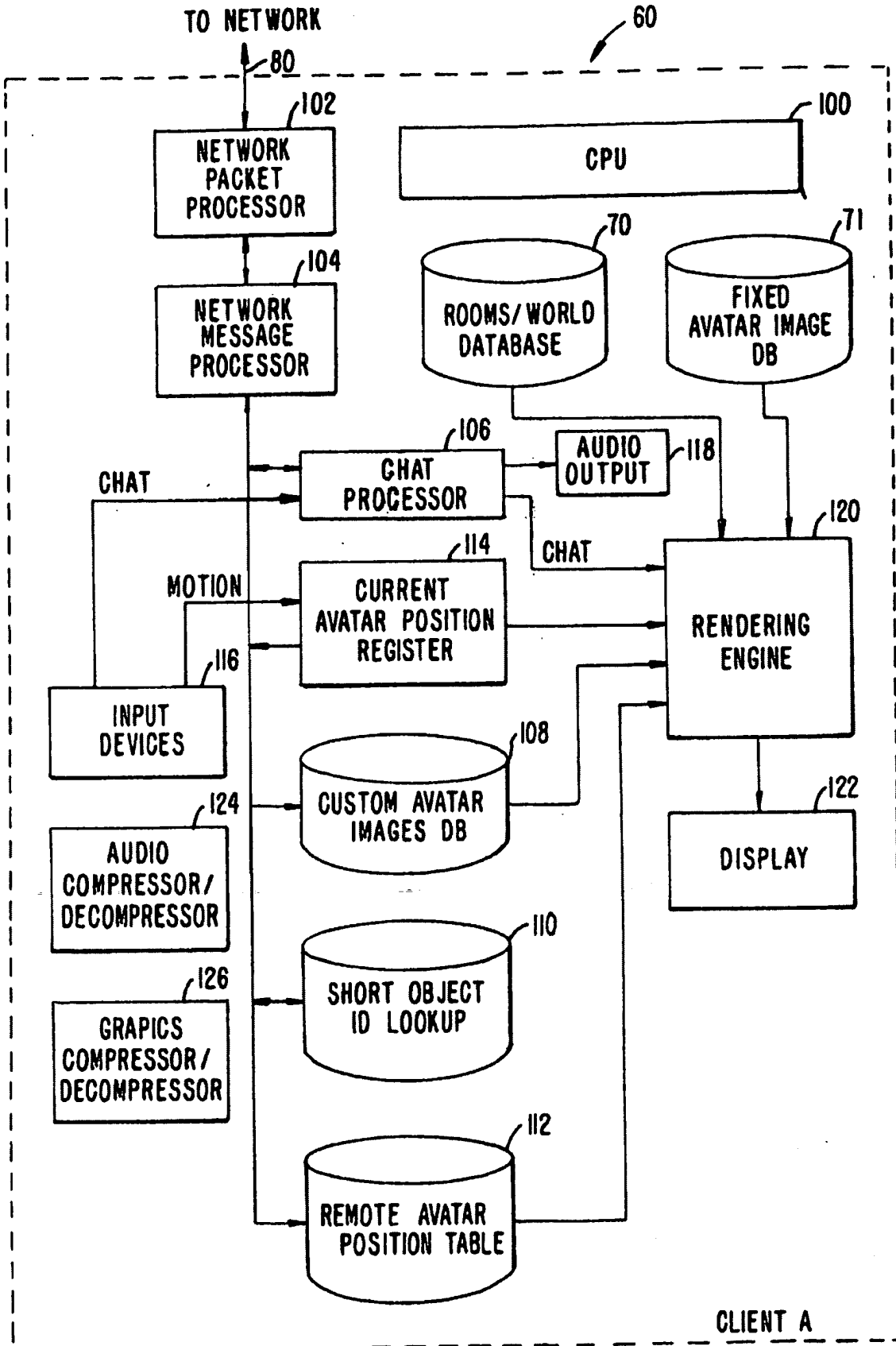


FIG. 4.

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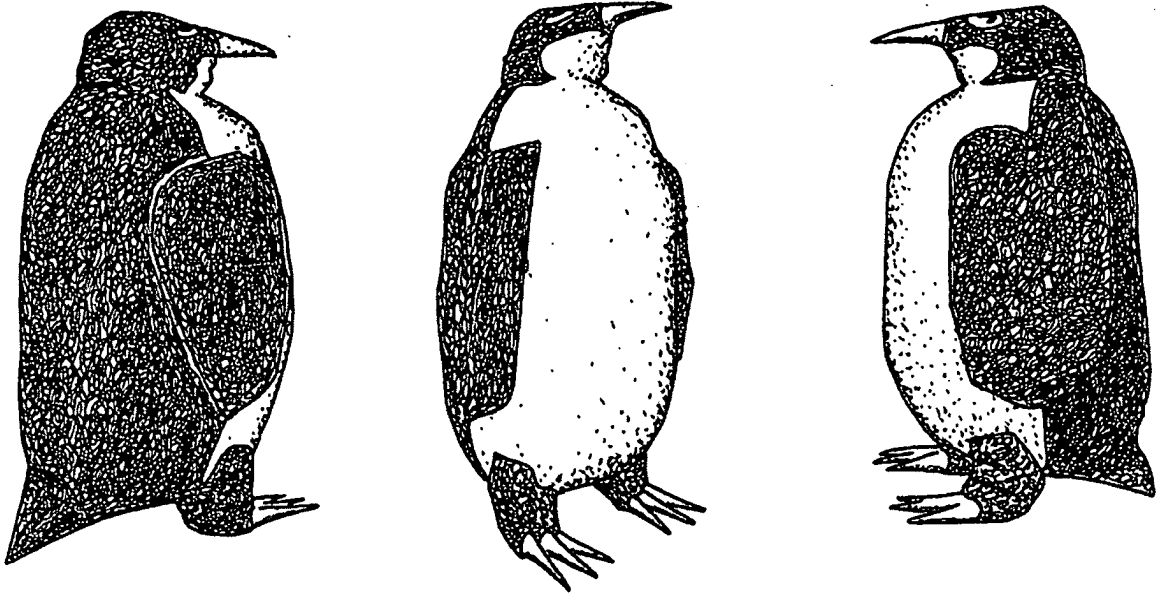


FIG. 5.

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/

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;

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.

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/
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San Diego, CA 92130
(858) 720-9431

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.

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					Application or Docket Number	
Substitute for Form PTO-875					12/406,968	
APPLICATION AS FILED – PART I						
(Column 1)		(Column 2)			SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA			RATE (\$)	FEE (\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A			N/A	82
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A			N/A	270
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A			N/A	110
TOTAL CLAIMS (37 CFR 1.16(i))	8	minus 20 =			x\$26	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *			x\$110	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))						
					195	
					TOTAL	462
OR						
					390	
					TOTAL	
* If the difference in column 1 is less than zero, enter "0" in column 2.						
APPLICATION AS AMENDED – PART II						
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
				SMALL ENTITY		
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
				SMALL ENTITY		
(Column 1)		(Column 2)		(Column 3)		
				OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
				OTHER THAN SMALL ENTITY		
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				OTHER THAN SMALL ENTITY		
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AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
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	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
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	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
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	Independent (37 CFR 1.16(h))	*	Minus	***	=	
	Application Size Fee (37 CFR 1.16(s))					
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AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*				

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	Filing Date 03/19/2009	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY				
(Column 1)		(Column 2)	SMALL ENTITY <input checked="" type="checkbox"/>		OR	SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)
<input checked="" type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	82		N/A	
<input checked="" type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A	270		N/A	
<input checked="" type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A	110		N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	3 minus 20 =	* 0	X \$26 =	0	OR	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	1 minus 3 =	* 0	X \$110 =	0		X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	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).						
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>							
			TOTAL	462		TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
(Column 1)		(Column 2)	(Column 3)		SMALL ENTITY		OR	SMALL ENTITY	
AMENDMENT	03/19/2009	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 8	Minus	** 20	=	0	OR	X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	* 2	Minus	*** 3	=	0	OR	X \$ =	
<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>									
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
(Column 1)		(Column 2)	(Column 3)		SMALL ENTITY		OR	SMALL ENTITY	
AMENDMENT	03/19/2009	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=		OR	X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=		OR	X \$ =	
<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>									
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							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.

Legal Instrument Examiner:
 /MARCUS MONROE/

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

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



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www.uspto.gov

Table with 7 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY. DOCKET NO, TOT CLAIMS, IND CLAIMS. Row 1: 12/406,968, 03/19/2009, 2173, 462, AP019CON3, 8, 2

CONFIRMATION NO. 6412

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

FILING RECEIPT



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 **

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

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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.

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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).



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APR 10 2009

OFFICE OF PETITIONS

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

In re Application of	:
Leahy, Challinger, Adler, Ardon	:
Application No.: 12/406,968	: DECISION REFUSING
Filed: March 19, 2009	: RULE 47(a) STATUS
Attorney Docket No: AP019CON3	:
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 papers¹.

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

¹ 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.

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 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 with Payment	no
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File Listing:

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 Petitions.	DecisionOnPetitionFromGrand parent-Image.pdf	1722581 <small>81e2a5bc459121736eba41f476515a40355f7da6</small>	no	3

Warnings:

Information:

2	Petition for review by the Office of Petitions.	PetitionReAbsentInventor-RequestForReconsiderationPlusPetitionOriginalWithDecisionInGrandparent.pdf	2333266 c78cf5399d66c04e9d8d16b8ac8d4332b6df3888	no	7
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Warnings:

Information:

Total Files Size (in bytes): 4055847

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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

AO 120 (Rev. 3/04)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas on the following Patents or Trademarks:

DOCKET NO. 6:08cv508	DATE FILED 12/24/2008	U.S. DISTRICT COURT Eastern District of Texas
PLAINTIFF WORLDS.COM INC.		DEFENDANT 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	Worlds.com Inc. (assignee)
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading		
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK	
1			
2			
3			
4			
5			

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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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.,	§	
	§	Civil Action No. 6:08-cv-508
Plaintiff,	§	
v.	§	<u>Jury Demand</u>
	§	
NCSOFT CORP.,	§	
	§	
Defendant.	§	
	§	

COMPLAINT AND DEMAND FOR TRIAL BY JURY

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

1. 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.
2. 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.

7. 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: rcbunt@pbatyler.com

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Westfield, NJ 07090-1497

Tel: (908) 654-5000

Fax: (908) 654-7866

ATTORNEYS FOR PLAINTIFF

WORLDS.COM INC.

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
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	LetterReFilingInfringementActionWithAtatchedReportComplaint-Image.pdf	869063 <small>2f4df72a08bb0b13287d8564ca26a32c11f2e4af</small>	no	6

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.

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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 with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed (SB/08)	IDS-Image.pdf	295416 <small>3e2f8e8655e807c50f38bfbf789318e4aa2fa16c</small>	no	2

Warnings:

Information:

This is not an USPTO supplied IDS fillable form					
2	Information Disclosure Statement (IDS) Filed (SB/08)	IDS1449-1through4-Image.pdf	816958	no	4
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Information:					
This is not an USPTO supplied IDS fillable form					
3	NPL Documents	pub1.pdf	596809	no	2
			a600eee95e66ffd81d69e65ae037da1f841f2c2c		
Warnings:					
Information:					
4	NPL Documents	pub2.pdf	833409	no	3
			9d7c16b2f667c74d6b0c46c8d604b35baa34a195		
Warnings:					
Information:					
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Information:					
6	NPL Documents	pub3dash2.pdf	648433	no	3
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Warnings:					
Information:					

10	NPL Documents	pub7.pdf	1290655	no	6
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Warnings:					
Information:					
11	NPL Documents	pub8.pdf	1392573	no	6
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12	NPL Documents	pub9.pdf	879083	no	3
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13	NPL Documents	pub10.pdf	1640338	no	7
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15	NPL Documents	pub13.pdf	1541426	no	6
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17	NPL Documents	pub15dash1.pdf	3760042	no	17
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Warnings:					
Information:					
18	NPL Documents	pub15dash2.pdf	2468370	no	11
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Warnings:					
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19	NPL Documents	pub12-Conformed.pdf	1881417 7a4b5fc8fd9977d48442f666726c6ab1070b9fc5	no	6
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Information:

Total Files Size (in bytes):	25336442
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UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
Washington, D.C. 20231
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Paper No. 29

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SAN FRANCISCO, CA 94111-3834

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SEP 19 2000

**SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS**

In re Application of	:
Leahy, Challinger, Adler, and Ardon	:
Application No. 08/747,420	: DECISION ACCORDING STATUS
Filed: 12 November, 1996	: UNDER 37 CFR 1.47(a)
Attorney Docket No. 17376-5	:

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.

¹ 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 last known address of the non-signing inventor.

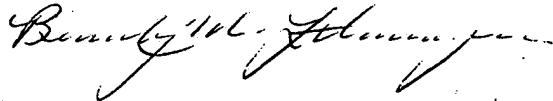
Application No. 08/747,420

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

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Paper No. 30

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SEP 19 2000

SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS

S. Mitra Ardon
1056 Noe
San Francisco, 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

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SAN FRANCISCO, CA 94111-3834

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.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	12/406,968
		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		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.	T ²
	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 Signature	Date Considered
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*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.

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

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	12/406,968
		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		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.	T ²
	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//1230595222 , 12/29/2008	
	12	LEIGH ALEXANDER, Report: Worlds.com Hits Ncsoft With Patent Infringement Suit, http://www.gamasutra.com/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 Signature		Date Considered	
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*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.

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

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.

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

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	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	Imai, 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.	all
	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 DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	
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*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 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ 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 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.

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.

<p style="text-align: center;">Substitute for form 1449/PTO</p> <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;"><i>(Use as many sheets as necessary)</i></p>	<p>Complete if Known</p>												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Application Number</td> <td>12/406,968</td> </tr> <tr> <td>Filing Date</td> <td>March 19, 2009</td> </tr> <tr> <td>First Named Inventor</td> <td>Dave Leahy</td> </tr> <tr> <td>Art Unit</td> <td>To Be Assigned</td> </tr> <tr> <td>Examiner Name</td> <td>To Be Assigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>AP 019CON3</td> </tr> </table>	Application Number	12/406,968	Filing Date	March 19, 2009	First Named Inventor	Dave Leahy	Art Unit	To Be Assigned	Examiner Name	To Be Assigned	Attorney Docket Number	AP 019CON3
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First Named Inventor	Dave Leahy												
Art Unit	To Be Assigned												
Examiner Name	To Be Assigned												
Attorney Docket Number	AP 019CON3												
Sheet 4 of 4													

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	35	US- 4,949,254	08-14-1990	Shorter	all
	36	US- 5,008,853	04-16-1991	Bly, et al.	all
		US-			
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner Signature	Date Considered	
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*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. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant 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 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/

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

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/

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



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C. 20231
www.uspto.gov
Dkt 08-00

Paper No. 29

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

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SEP 19 2000

**SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS**

In re Application of :
Leahy, Challinger, Adler, and Ardon :
Application No. 08/747,420 : **DECISION ACCORDING STATUS**
Filed: 12 November, 1996 : **UNDER 37 CFR 1.47(a)**
Attorney Docket No. 17376-5 :

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.

¹A 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 last known address of the non-signing inventor.

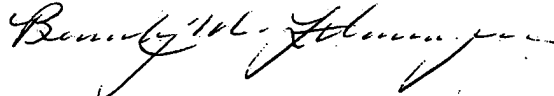
Application No. 08/747,420

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
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Paper No. 30

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SEP 19 2000

**SPECIAL PROGRAMS OFFICE
DAC FOR PATENTS**

S. Mitra Ardon
1056 Noe
San Francisco, 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 FRANCISCO, 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.

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



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

COPY MAILED

JUN 19 2009

OFFICE OF PETITIONS

In re Application of
Leahy, Challenger, Adler, Ardon
Application No.: 12/406,968
Filed: March 19, 2009
Attorney Docket No: AP019CON3
For: SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT
IN A VIRTUAL SPACE

:
:
: DECISION ON
: PETITION
:

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 accorded Rule 1.47(a) status. 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
Kenya A. McLaughlin
Petitions Attorney
Office of Petitions



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

Table with 4 columns: APPLICATION NUMBER (12/406,968), FILING OR 371(C) DATE (03/19/2009), FIRST NAMED APPLICANT (Dave Leahy), ATTY. DOCKET NO./TITLE (AP019CON3)

CONFIRMATION NO. 6412

PUBLICATION NOTICE

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



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 Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/406,968	03/19/2009	Dave Leahy	AP019CON3	6412
35070	7590	02/01/2010	EXAMINER	
ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130			NGUYEN, CAO H	
			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.

Office Action Summary	Application No. 12/406,968	Applicant(s) LEAHY ET AL.	
	Examiner Cao (Kevin) Nguyen	Art Unit 2173	

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

Period for Reply

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

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

Status

- 1) Responsive to communication(s) filed on 19 March 2009.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 4-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 4-11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ 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 Draftperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/09.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

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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:

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

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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 Shiiio (US Patent No. 5,491,743) in view of Farmer et al. (US Patent No. 6,229,533).

Regarding claim 4, Shiiio 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, Shiiio 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 Shiiio and Farmer before him at the time the invention was, modify the virtual conference system user of Shiiio 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.

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Regarding claim 5, Shiiio 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, Shiiio 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, Shiiio 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, Shiiio 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 Shiiio (see col. 14, lines 42-67).

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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

1/27/10

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

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-7,493,558	02-2009	Leahy et al.	715/704
*	B US-5,491,743	02-1996	Shiio et al.	709/204
	C US-			
	D US-			
	E US-			
	F US-			
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			

FOREIGN PATENT DOCUMENTS

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

NON-PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	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.

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.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	12/406,968
		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		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.	T ²
/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 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	
/K.N./	9	NCsoft Sued for Patent Infringement, http://www.edge-online.com/news/ncsoft-sued-patent-infringement , 12/30/2008	

Examiner Signature	/Cao Nguyen/	Date Considered	01/30/2010
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*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.

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		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		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.	T ²
/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//1230595222 , 12/29/2008	
/K.N./	12	LEIGH ALEXANDER, Report: Worlds.com Hits Ncsoft With Patent Infringement Suit, http://www.gamasutra.com/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	

Examiner Signature	/Cao Nguyen/	Date Considered	01/30/2010
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Substitute for form 1449/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	12/406,968
		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
		Attorney Docket Number	AP 019CON3
Sheet	3	of	4

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/K.N./	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	Imai, 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.	all
	32	US- 4,937,784	06-26-1990	Masai, et al.	all
	33	US- 4,939,509	07-03-1990	Bartholomew, et al.	all
/K.N./	34	US- 4,949,248	08-14-1990	Caro	all

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner Signature	/Cao Nguyen/	Date Considered	01/30/2010
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		Filing Date	March 19, 2009
		First Named Inventor	Dave Leahy
		Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
		Attorney Docket Number	AP 019CON3
Sheet	4	of	4

U. S. PATENT DOCUMENTS					
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		Number-Kind Code ² (<i>if known</i>)			
/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
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ * Number ⁴ * Kind Code ⁵ (<i>if known</i>)				

Examiner Signature	/Cao Nguyen/	Date Considered	01/30/2010
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Search Notes



Application/Control No.

12/406,968

Examiner

Cao (Kevin) Nguyen

Applicant(s)/Patent under Reexamination

LEAHY ET AL.

Art Unit

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

Index of Claims



Application/Control No.

12/406,968

Examiner

Cao (Kevin) Nguyen

Applicant(s)/Patent under Reexamination

LEAHY ET AL.

Art Unit

2173

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date			
Final	Original	1/27/10			
1					
2					
3					
4	✓				
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		12406968
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	Art Unit		2173
	Examiner Name	Nguyen, Cao H.	
	Attorney Docket Number		AP019CON3

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Signature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30
Name/Print	Anatoly S. Weiser	Registration Number	43,229

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1	HOLLOWAY et al., Virtual Environments: A Survey of the Technology (TR-93-033), Dept. Comp. Sci. U. of North Carolina, 1993, pp. 1-57, Chapel Hill, NC, USA	<input type="checkbox"/>
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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).

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See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

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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

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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	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
38	FUKUDA et al., Hypermedia Personal Computer Communication System: Fujitsu Habitat, FUJITSU Sci. Tech. J., 1990, pp.197-206, Vol. 26, No. 3, Japan	<input type="checkbox"/>
39	FUNKHOUSER, Network Services for Multi-User Virtual Environments, IEEE Network Realities, 1995, pp. 1-8, Boston, MA, USA	<input type="checkbox"/>
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	<input type="checkbox"/>
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]	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>

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	Nguyen, 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]	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
49	HAHN et al., An Integrated Virtual Environment System, Presence, pp. 353-360, Vol. 2 No. 4, MIT Press, Cambridge, MA, USA	<input type="checkbox"/>
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	<input type="checkbox"/>

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Application Number	12406968
Filing Date	2009-03-19
First Named Inventor	Leahy, Dave
Art Unit	2173
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Fee set forth in 37 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.

Signature	/Anatoly S. Weiser/	Date (YYYY-MM-DD)	2010-03-30
Name/Print	Anatoly S. Weiser	Registration Number	43,229

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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).
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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	Filing Date	2009-03-19
	First Named Inventor	Leahy, Dave
	Art Unit	2173
	Examiner Name	Nguyen, Cao H.
	Attorney Docket Number	AP019CON3

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

1	ZYDA et al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4, No. 1	<input type="checkbox"/>
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	<input type="checkbox"/>
3	Excerpt from Harry Newton, Newton's Telecom Dictionary, 686 (18th ed. 2002) (defining the phrase "source code"). p. 686	<input type="checkbox"/>

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Electronic Patent Application Fee Transmittal

Application Number:	12406968
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:	Dave Leahy
Filer:	Anatoly 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
Total in USD (\$)				180

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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:

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Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
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Information:					
2	Miscellaneous Incoming Letter	AP019CON3IDSNo2Statement.pdf	106663 057501000b4ff7fa3564fe77b3738b2578f1fcf	no	2
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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.

TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	12406968
	Filing Date	2009-03-19
	First Named Inventor	Leahy, Dave
	Art Unit	2173
	Examiner Name	Nguyen, Cao H.
Total Number of Pages in This Submission	5,801	Attorney Docket Number AP019CON3

ENCLOSURES (Check all that apply)				
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): * Transmittal Form (2 pages) * Information Disclosure Statement (2 pages) See Remarks		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 150px;">Remarks</td> <td> * Form PTO/SB/08a EFS-Web Form No. 1 (14 pages) * Form PTO/SB/08a EFS-Web Form No. 2 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 3 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 4 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 5 (4 pages) * References (239 items, (5,755 pages)) </td> </tr> </table>			Remarks	* Form PTO/SB/08a EFS-Web Form No. 1 (14 pages) * Form PTO/SB/08a EFS-Web Form No. 2 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 3 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 4 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 5 (4 pages) * References (239 items, (5,755 pages))
Remarks	* Form PTO/SB/08a EFS-Web Form No. 1 (14 pages) * Form PTO/SB/08a EFS-Web Form No. 2 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 3 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 4 (8 pages) * Form PTO/SB/08a EFS-Web Form No. 5 (4 pages) * References (239 items, (5,755 pages))			

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Intellectual Property Legal Counsel		
Signature	/Anatoly S. Weiser/		
Printed name	Anatoly S. Weiser		
Date	March 30, 2010	Reg. No.	43,229

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature	/Anatoly S. Weiser/		
Typed or printed name	Anatoly S. Weiser	Date	March 30, 2010

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.

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

Privacy Act Statement

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

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

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

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 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.

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 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
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Total Files Size (in bytes):

226033014

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New Applications Under 35 U.S.C. 111

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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)

Payment information:

Submitted with Payment	no
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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)

Payment information:

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Warnings:

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	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):		83478606	

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:	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)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		4a26-36.pdf	14289691 b449f2ed3790c28073d02bbcb1f26a15ef099513	yes	105

Multipart Description/PDF files in .zip description			
Document Description	Start	End	
NPL Documents	1	16	
NPL Documents	17	37	
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NPL Documents	101	105	

Warnings:

Information:

2		4a37-38.pdf	11677117	yes	178
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	NPL Documents	36	49
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Warnings:

Information:

4		4a42-47.pdf	24797586	yes	304
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NPL Documents	298	304

Warnings:

Information:

5		4a48-50.pdf	1613759	yes	23
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Warnings:

Information:

6		5a1-3.pdf	3351886	yes	18
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Document Description		Start	End
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NPL Documents		13	17
NPL Documents		18	18

Warnings:

Information:

Total Files Size (in bytes):	68406664
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

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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

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 Shiiro *et al.*, U.S. Patent Number 5,491,743 (“Shiiro”) 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 Shiiro and Farmer, the Office Action asserted that Shiiro discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, citing Shiiro’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.

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.

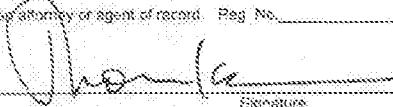
Having made an effort to bring the application in condition for allowance, a notice to this effect is earnestly solicited.

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

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TERMINAL DISCLAIMER TO OBTAIN A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	Docet Number (Optional) APPROVISIONS
In re Application of: <u>Dave Leahy et al.</u>	
Application No.: <u>12/436,868</u>	
Filed: <u>3/19/2009</u>	
For: <u>SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE</u>	
<p>The owner, <u>Worlds, Inc.</u>, of <u>100</u> 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. <u>7,181,880</u> 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 in 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.</p>	
<p>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:</p> <ul style="list-style-type: none">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 reissued; oris 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. <input checked="" type="checkbox"/> 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.	
<p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that in case statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>	
2. <input type="checkbox"/> The undersigned is an attorney or agent of record. Reg. No. _____	
 Signature	<u>6/1/10</u> Date
Thom Kiffin Typed or printed name	
<u>617 725 8900</u> Telephone Number	
<input checked="" type="checkbox"/> Terminal disclaimer fee under 37 CFR 1.20(e) 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.	
<p>*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/98 may be used for making this certification. See MPEP § 524.</p>	

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 be (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 522 and 37 CFR 1.11 and 1.14. The collection is estimated to take 10 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 22315-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22315-1460.

If you need assistance in completing the form, call 1-800-PTO-9198 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	12406968
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:	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:				
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
Total 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)

Payment information:

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 Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Amendment/Req. Reconsideration-After Non-Final Reject	Amendment1-Image.pdf	1274893	no	8
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Warnings:					
Information:					
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Warnings:					
Information:					
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Warnings:					
Information:					
Total Files Size (in bytes):			1569410		

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New Applications Under 35 U.S.C. 111

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

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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:	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)

Payment information:

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 Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Amendment/Req. Reconsideration-After Non-Final Reject	Amendment1-Image.pdf	1274893	no	8
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Warnings:					
Information:					
2	Terminal Disclaimer Filed	TerminalDisclaimer-Executed. pdf	262393	no	1
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Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	32124	no	2
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Total Files Size (in bytes):			1569410		

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.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/406,968	Filing Date 03/19/2009	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	SMALL ENTITY <input checked="" type="checkbox"/>	OR			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A			N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$ =		OR	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =			X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	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).						
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR			
AMENDMENT	07/01/2010	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 8	Minus ** 20	= 0	X \$26 =	0		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	* 2	Minus *** 3	= 0	X \$110 =	0		X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>								
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus **	=	X \$ =			X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus ***	=	X \$ =			X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>								
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						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.

Legal Instrument Examiner:
 /POLIN ANG/

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

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

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.

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

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

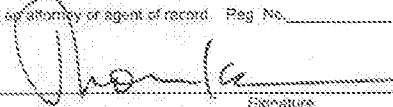
Application Number 	Application/Control No. 12/406,968	Applicant(s)/Patent under Reexamination LEAHY ET AL.

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TERMINAL DISCLAIMER TO OBTAIN A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	Doctet Number (Optional) APPROVISIONS
In re Application of: <u>Dave Leahy et al.</u>	
Application No: <u>12/436,868</u>	
Filed: <u>3/19/2009</u>	
For: <u>SYSTEM AND METHOD FOR ENABLING USERS TO INTERACT IN A VIRTUAL SPACE</u>	
The owner, <u>Worlds, Inc.</u> , of <u>100</u> 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. <u>7,181,880</u> 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 in 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: expres 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 reissued; or 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.	
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that in case statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
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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 be (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 522 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 22315-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22315-1460.

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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)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	TerminalDisclaimer1.pdf	262183 <small>3c8095d64f3227fd39665d611b084ca5a0f171d7</small>	no	1

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/406,968	03/19/2009	Dave Leahy	AP019CON3	6412
35070	7590	09/21/2010	EXAMINER	
ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130			NGUYEN, CAO H	
			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.

Office Action Summary	Application No. 12/406,968	Applicant(s) LEAHY ET AL.	
	Examiner Cao (Kevin) Nguyen	Art Unit 2173	

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

Period for Reply

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

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

Status

- 1) Responsive to communication(s) filed on 01 July 2010.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 4-11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 4-11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ 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) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/10</u> . | 6) <input type="checkbox"/> Other: _____. |

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 negated 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

Art Unit: 2173

user avatars from a server process (see col. 5, lines 42-60); however, Shiiro 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 Shiiro and Suzuki before him at the time the invention was, modify the virtual conference system user of Shiiro 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, Shiiro 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).

Art Unit: 2173

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.

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.	
	Examiner Cao (Kevin) Nguyen	Art Unit 2173	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,736,982	04-1998	Suzuki et al.	715/706
	B US-			
	C US-			
	D US-			
	E US-			
	F US-			
	G US-			
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FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

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*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.

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	Nguyen, Cao H.
	Attorney Docket Number	AP019CON3

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**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	Nguyen, Cao H.
Attorney Docket Number	AP019CON3

/K.N./ 	1	HOLLOWAY et al., Virtual Environments: A Survey of the Technology (TR-93-033), Dept. Comp. Sci. U. of North Carolina, 1993, pp. 1-57, Chapel Hill, NC, USA	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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]	<input type="checkbox"/>
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	/K.N./	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

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
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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./	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
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	18	MACEDONIA, A Network Software Architecture For Large Scale Virtual Environments, Naval Postgraduate School Dissertation, 1995, pp. 1-233, Monterey, CA, USA	<input type="checkbox"/>
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	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
↓ /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/]	<input type="checkbox"/>

**INFORMATION DISCLOSURE
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Examiner Name	Nguyen, 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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
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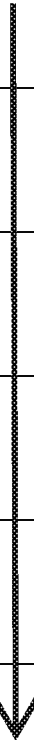
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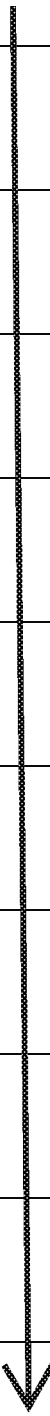
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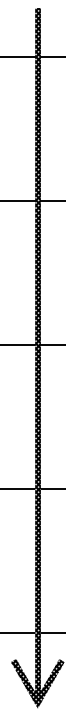

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	24	COHEN et al., I-COLLIDE: An Interactive and Exact Collision Detection System for Large-Scale Environments, SI3D '95: Proc. 1995 Symp. Interactive 3D graphics, 1995, pp. 189-196, ACM Press, New York, NY, USA	<input type="checkbox"/>
	25	CONN, Virtual Environments and Interactivity: Windows to the Future, SIGGRAPH '89 Panel Proc., 1989, pp. 7-18, ACM Press, New York, NY, USA	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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]	<input type="checkbox"/>
	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]	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
/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	<input type="checkbox"/>


**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	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	38	FUKUDA et al., Hypermedia Personal Computer Communication System: Fujitsu Habitat, FUJITSU Sci. Tech. J., 1990, pp.197-206, Vol. 26, No. 3, Japan	<input type="checkbox"/>
	39	FUNKHOUSER, Network Services for Multi-User Virtual Environments, IEEE Network Realities, 1995, pp. 1-8, Boston, MA, USA	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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]	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
/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	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
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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./ 	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]	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	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	<input type="checkbox"/>
	49	HAHN et al., An Integrated Virtual Environment System, Presence, pp. 353-360, Vol. 2 No. 4, MIT Press, Cambridge, MA, USA	<input type="checkbox"/>
/K.N./	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	<input type="checkbox"/>

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	Filing Date	2009-03-19
	First Named Inventor	Leahy, Dave
	Art Unit	2173
	Examiner Name	Nguyen, Cao H.
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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./	1	ZYDA et al., NPSNET: Real-time Collision Detection and Response, J. Vis. Comp. Animation, 1993, pp. 13-24, Vol. 4, No. 1	<input type="checkbox"/>
/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	<input type="checkbox"/>
/K.N./	3	Excerpt from Harry Newton, Newton's Telecom Dictionary, 686 (18th ed. 2002) (defining the phrase "source code"). p. 686	<input type="checkbox"/>


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Application Number 	Application/Control No. 12/406,968	Applicant(s)/Patent under Reexamination LEAHY ET AL.

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	Filing Date	March 19, 2009
	First Named Inventor	Dave Leahy
	Art Unit	2173
	Examiner Name	NGUYEN, CAO H
	Attorney Docket Number	AP019CON3

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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
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Application Type:	Utility under 35 USC 111(a)

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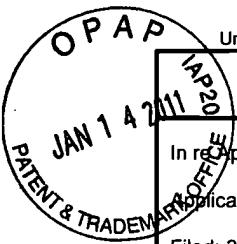
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AP019CON3

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

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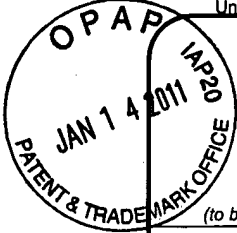
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Filing Date	3/19/2009
First Named Inventor	Dave Leahy et al.
Art Unit	2173
Examiner Name	Nguyen; Kevin
Attorney Docket Number	AP019CON3

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Worlds Inc.		
Signature			
Printed name	Thom Kidrin		
Date	1/11/11	Reg. No.	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Thom Kidrin	Date	1/11/11

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POWER OF ATTORNEY OR REVOCAION 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
	Title	SYSTEM AND METHOD FOR ENABLING USERS TO INT
	Art Unit	2173
	Examiner Name	CAO H. NGUYEN
	Attorney Docket Number	WORLDS 003

I hereby revoke all previous powers of attorney given in the above-identified application.

 A Power of Attorney is submitted herewith.**OR** 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:

35070

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 Number

Please recognize or change the correspondence address for the above-identified application to:

 The address associated with the above-mentioned Customer Number.**OR** The address associated with Customer Number:**OR** Firm or Individual Name

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 03/19/2009.**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 the inventors or assignees of record of the entire interest or their representative(s) are required. 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 1.31, 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.**

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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.
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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.
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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.

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:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA003- Executed2011January21.pdf	1464786 <small>3f874f0c53fb4e2d465947d1a6c3c39b7298fa82</small>	no	2

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**

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

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 Shiiro *et al.*, U.S. Patent Number 5,491,743 (“Shiiro”), 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 Shiiro and Suzuki, the Office Action asserted that Shiiro discloses receiving, by the client device, position information associated with fewer than all of the other user avatars from a server process, citing Shiiro's column 5, lines 42-60. Shiiro 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.

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 Shio 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.

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

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**TERMINAL DISCLAIMER TO OBIVATE A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
Worlds 003

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

The owner*, Worlds, Inc., of 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 reissued; or
- 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 information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. The undersigned is an attorney or agent of record. Reg. No. 43,229

/Anatoly S. Weiser/
Signature

01/21/2011
Date

Anatoly S. Weiser
Typed or printed name

(858) 720-9431
Telephone Number

- Terminal disclaimer fee under 37 CFR 1.20(d) included.

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Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

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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

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/Anatoly S. Weiser/
Signature

01/21/2011
Date

Anatoly S. Weiser
Typed or printed name

(858) 720-9431
Telephone Number

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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.

Electronic Patent Application Fee Transmittal

Application Number:	12406968
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:	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:				
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
Total in USD (\$)				205

Electronic Acknowledgement 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 Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Amendment/Req. Reconsideration-After Non-Final Reject	Amendment2-Image.pdf	1824467	no	10
			51f981debec188b560fd7ca3685643c80025e2c		
Warnings:					
Information:					
2	Terminal Disclaimer Filed	TerminalDisclaimerByASWOver Pat7181690.pdf	210476	no	2
			32bba852b2561765d0e6b992c8b2acd3a9c25366		
Warnings:					
Information:					
3	Terminal Disclaimer Filed	TerminalDisclaimerByASWOver Pat7493558.pdf	210485	no	2
			e0a210e4a82cdc9dc00a49cf7a625b7b778ed91		
Warnings:					
Information:					
4	Fee Worksheet (PTO-875)	fee-info.pdf	32266	no	2
			9b02f746c186218d83f81c53d25aa19c00db6c0e		
Warnings:					
Information:					
Total Files Size (in bytes):			2277694		

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.

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	Filing Date 03/19/2009	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY			
	(Column 1)	(Column 2)	SMALL ENTITY <input checked="" type="checkbox"/>	OR		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A		N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (j), or (m))</small>	N/A	N/A	N/A		N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A		N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(j))</small>	minus 20 =	*	X \$ =	OR	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =		X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	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).					
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>						
			TOTAL		TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY			
	(Column 1)	(Column 2)	(Column 3)					
AMENDMENT	01/21/2011	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST 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 \$ =
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						OR	
	<input type="checkbox"/> 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 \$ =
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						OR	
	<input type="checkbox"/> 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.

Legal Instrument Examiner:
/KAREN VESTAL/

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 processor of a 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~~ 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 client 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.



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/406,968	03/19/2009	Dave Leahy	WORLD5 003

CONFIRMATION NO. 6412

POA ACCEPTANCE LETTER

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



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.

/s/brahim/

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

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.	:	DECISION ON PETITION
Application No. 12/406,968	:	TO WITHDRAW
Filed: March 19, 2009	:	FROM RECORD
Attorney Docket No. WORLDS 003	:	

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

cc: WORLDS.COM, INC.
11 ROYAL ROAD
BROOKLINE, MA 02445

POWER OF ATTORNEY OR REVOCAION 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
	Title	SYSTEM AND METHOD FOR ENABLING USERS TO INT
	Art Unit	2173
	Examiner Name	CAO H. NGUYEN
	Attorney Docket Number	WORLDS 003

I hereby revoke all previous powers of attorney given in the above-identified application.

A Power of Attorney is submitted herewith.

OR

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:

35070

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 Number

Please recognize or change the correspondence address for the above-identified application to:

The address associated with the above-mentioned Customer Number.

OR

The address associated with Customer Number:

OR

Firm or Individual Name

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 03/19/2009.

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 the inventors or assignees of record of the entire interest or their representative(s) are required. 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 1.31, 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:

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.

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
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA003-Executed2011January21.pdf	1464786 3f874f0c53fb4e2d465947d1a6c3c39b7298fa82	no	2

Warnings:

Information:

Total Files Size (in bytes):	1464786
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/406,968	03/19/2009	Dave Leahy	WORLD5 003

CONFIRMATION NO. 6412

POWER OF ATTORNEY NOTICE

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



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



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/406,968	03/19/2009	Dave Leahy	WORLD5 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.

/tran/

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



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/406,968	03/19/2009	Dave Leahy	WORLDS 003	6412
35070	7590	03/31/2011	EXAMINER	
ANATOLY S. WEISER 3525 DEL MAR HEIGHTS ROAD, #295 SAN DIEGO, CA 92130			NGUYEN, CAO H	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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

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 negated 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 Shio (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, Shio 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

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(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, Shiiro 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 Shiiro and Suzuki before him at the time the invention was, modify the virtual conference system user of Shiiro 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 Shiiro 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

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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).

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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

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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 Shiiro, 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, Shiiro discloses the virtual conference system, to include virtual space display method of Suzuki used in combination of Newsbytes *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

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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.

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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.	
	Examiner Cao (Kevin) Nguyen	Art Unit 2173	Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A US-			
	B US-			
	C US-			
	D US-			
	E US-			
	F US-			
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			


FOREIGN PATENT DOCUMENTS

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

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.			
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.

Application Number 	Application/Control No. 12/406,968	Applicant(s)/Patent under Reexamination LEAHY ET AL.	

Document Code - DISQ	Internal Document – DO NOT MAIL
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TERMINAL DISCLAIMER	<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> DISAPPROVED
Date Filed : 1/21/11	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
Janice Ford

Application Number 	Application/Control No. 12/406,968	Applicant(s)/Patent under Reexamination LEAHY ET AL.	

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Date Filed : 1/14/11	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
Janice Ford

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: **3/31/2011**

Confirmation No.: **6412**

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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.