United States District Court, N.D. California, San Jose Division.

## FORTERRA SYSTEMS, INC., a California Corporation,

Plaintiff.

v.

AVATAR FACTORY, a California Corporation, IMVU, inc., a Delaware corporation, and William D. Harvey, an individual,

Defendants.

No. C-05-04472 PVT

Oct. 3, 2006.

Byron W. Cooper, John E. Lord, Townsend, Townsend and Crew LLP, Palo Alto, CA, for Plaintiff.

Alan J. Henrich, Morgan Chu, Richard Elgar Lyon, III, Irell & Manella LLP, Los Angeles, CA, for Defendants.

#### ORDER RE CLAIM CONSTRUCTION OF UNITED STATES PATENT NO. 6,784, 901

PATRICIA V. TRUMBULL, Magistrate Judge.

#### I. INTRODUCTION AND FACTUAL BACKGROUND

The proper construction of U.S. Patent No. 6,628,671 ("the '671 patent") is currently before the Court. FN1 The Court held a claim construction hearing on June 27, 2006. Plaintiff Forterra Systems, Inc. ("Forterra")(previously known as "There, Inc.") is the owner of U.S. Patent No. 6,784,901 ("the '901 patent). Defendant Will Harvey ("Harvey") is a named inventor on the '901 patent. Upon leaving the company, Harvey assigned all rights to intellectual property he developed to There, Inc. Harvey then founded Avatar Factory (later IMVU, Inc.) (all references will be to "IMVU"). The invention of the '901 patent relates to a method, system and computer program for delivering electronic chat messages in a three-dimensional ("3D") multi-user environment. Forterra claims that IMVU's on line chat system infringes the '901 patent. IMVU claims that its product is indistinguishable from systems in use prior to the granting of the patent.

FN1. The holding of this court is limited to the facts and the particular circumstances underlying the present motion.

There are three principal claim terms in dispute, as well as three means-plus function limitations. The terms in dispute are:

1) "maps (or mapping) the message to a texture to generate a textured message" (claims 1, 39, 42, 52, 83);

- 2) "renders (or rendering) said textured message at locations along a path in the three-dimensional multiuser environment, whereby the recipient can visually ascertain at least portions of the path of the textured message through said recipient viewport" (claim 1, 42); and
- 3) "renders (or rendering) said textured message in the three-dimensional multi-user environment so as to permit the recipient to visually ascertain the location of the digital representation of the sender. (claim 39, 83).

#### Claims 1 and 39 state:

- 1. A system for delivering a message between a sender and a recipient in a three-dimensional multi-user environment, wherein said three-dimensional multi-user environment maintains respective digital representations of the sender and the recipient, comprising:
- a sender interface; and
- a recipient interface, including a recipient viewport;

wherein said recipient interface receives the message from said sender interface, maps the message to a texture to generate a textured message, and renders said textured message at locations along a path in the three-dimensional multi-user environment, whereby the recipient can visually ascertain at least portions of the path of the textured message through said recipient viewport.

39. A chat system for delivering a message between a sender and a recipient in a three-dimensional multi-user environment, wherein said three-dimensional multi-user environment maintains respective digital representations of the sender and the recipient, comprising:

a recipient interface;

wherein said recipient interface receives a message, maps the message to a texture to generate a textured message, and renders said textured message in the three-dimensional multi-user environment so as to permit the recipient to visually ascertain the location of the digital representation of the sender.

The three means plus function limitations requiring construction appear in claim 86 which recites:

A computer program product comprising a computer useable medium having computer program logic for enabling at least one processor in a computer system to provide a recipient interface to a three-dimensional multi-user environment that includes a recipient viewport and to receive a message from a sender, wherein said three-dimensional multi-user environment maintains a digital representation of the sender, said computer program logic comprising:

means for enabling at least one processor to receive a message;

means for enabling at least one processor to map said message to a texture to

generate a textured message;

means for enabling at least one processor to render said textured message in the

three-dimensional multi-user environment so as to indicate the location of the digital representation of the sender on the recipient viewport.

The heart of the dispute between the parties is whether the '901 patent covers all text messages displayed in a Three-Dimensional Multi-User Environment in a manner that indicates the location of the digital representation of the sender or whether the '901 patent is limited to text messages that are given a 3D animation in the Three-Dimensional Multi-User Environment.

#### II. LEGAL STANDARDS

Claim construction is a matter of law for the court, which is empowered and obligated to construe the meaning of the language used in the patent claim. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995)(en banc), *aff'd*, 517 U.S. 370 (1996). In interpreting disputed claim terms, the court should look first to the intrinsic evidence of record. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Intrinsic evidence includes the language of the claims, the specification, and the file history, if in evidence. *Id*.

"Claim language generally carries the ordinary meaning of the words in their normal usage in the field of invention" at the time of invention. Invitrogen Corp. v. Biocrest Mfg., L.P., 327 F.3d 1364, 1367 (Fed.Cir.2003); CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.Cir.2002) (There is a " 'heavy presumption' that a claim term carries its ordinary and customary meaning.") A court determines the meaning of a technical term in a patent claim "in accordance with its usage in the specification, elaborated if appropriate by the prosecution history and with due consideration to usage in the field of the invention." Norian Corp. v. Stryker Corp., 363 F.3d 1321, 1326 (Fed.Cir.2004). The court looks to "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." Innova/ Pure Water, Inc. v. Safari Water Filtration Sys, Inc., 381 F.3d 1111, 1116 (Fed.Cir.2004). Those sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." Id. (emphasis added); see also Invitrogen, 327 F.3d at 1367 (context and prior art are key to discerning normal usage of words in claims.) In construing claims, the problem the inventor was attempting to solve, as discerned from the specification and the prosecution history, is a relevant consideration. CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1160 (Fed Cir.1997); see also Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1554 (Fed.Cir.1997), abrogated on other grounds by Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448 (Fed.Cir.1998).

The Federal Circuit has recognized the challenges inherent in proper use of the specification. "On the one hand, claims 'must be read in view of the specification, of which they are a part.' On the other hand, it is improper to read a limitation from the specification into the claims." Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 904-05 (Fed.Cir.2004) (citations omitted); *see also* Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186-87 (Fed.Cir.1998)("there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.").

Dictionaries can be helpful in ascertaining the plain and ordinary meaning of claim language. Texas Digital

Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002). However, the Federal Circuit recently clarified the role of dictionary definitions in claim construction, finding that the *Texas Digital* line of cases too often has been "improperly relied upon to condone the adoption of a dictionary definition entirely divorced from the context of the written description." Phillips v. AWH Corp., 415 F.3d 1303, 1321 (Fed.Cir.2005) (en banc).

The court may also consider extrinsic evidence in the form of expert testimony, but should not accept conclusory assertions or expert testimony at odds with the intrinsic evidence. *Phillips*, 415 F.3d at1318, *citing* Key Pharms v. Hercon Labs Corp., 161 F.3d 709, 716 (Fed.Cir.1998). Finally, it is an old axiom that patents "are to receive a liberal construction, and under the fair application of the rule, *ut res magis valeat quam pereat*, are, *if practicable*, to be so interpreted as to uphold and not to destroy the right of the inventor." Nazomi Comms, Inc. v. ARM Holding, PLC, 403 F.3d 1364, 1368-69 (Fed.Cir.2005), *quoting* Turrill v. Mich. S. & N. Ind. R.R., 1 Wall. 491, 68 U.S. 491, 510, 17 L.Ed. 668 (1863) (emphasis added). FN2

FN2. Forterra asserts: "the Federal Circuit in Phillips held that 'the doctrine of construing claims to preserve their validity, a doctrine of limited utility in any event, has no applicability.' *Id.* at 1328" Pl. Reply Br. at 4. What Phillips actually says is that the doctrine "has no applicability *here*." Phillips, 415 F.3d at 1328. The word "here", omitted without notification, makes a vast difference. Instead of invalidating the doctrine, the court simply found that it did not apply in the particular facts presented in that case because it found the claim term was not ambiguous.

The parties have devoted significant energy to the question of whether assignor estoppel has any part in this claim construction. Assignor estoppel is an equitable doctrine that prevents one who has assigned the rights to a patent from later contending that what was assigned is invalid. Diamond Scientific Co. v. Ambico, Inc., 848 F.2d 1220, 1224 (Fed.Cir.1988). An estopped party may argue for a narrow claim construction. Mentor Graphics Corp. v. Quickturn Design Sys. Inc., 150 F.3d 1374, 1380 (Fed.Cir.1998); Applied Materials, Inc. et al. v. Negevtech, Inc. et al., 2005 WL 1656894 at n. 6 (N.D.Cal.2005). Accordingly, the doctrine of assignor estoppel plays no part in the claim construction process.

#### III. DISCUSSION

# A. Maps (Or Mapping) the Message to a Texture to Generate a Textured Message

Forterra asserts that only the phrase "textured message" needs to be construed and that the proper construction is: "the association of a text message with a background pattern." IMVU asserts the proper construction is: "The recipient interface generates the appearance of the chat message." IMVU argues that Forterra's construction is incorrect because it would exclude a preferred embodiment. A construction that would exclude one of the preferred embodiments of the specification is rarely correct. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996) (such a construction is rarely, if ever, correct and would require highly persuasive evidentiary support).

The patent states: "FIGS. 16A-16F show example textured messages for the chat message 'Hi There.' " 16:6-7. FN3 Figure 16A is devoid of any background association. Thus, Figure 16A falls outside of Forterra's proposed construction. Forterra attempts to argue that Figure 16A is a message and figures 16B-F are the only examples of textured message. Thus, Forterra asserts:

FN3. All column and line references are to the '901 patent, unless otherwise noted.

In Fig. 16A, a message "HI THERE" is shown. This message is mapped to different types of textures to create a textured message. Figs. 16B-16F show example textured messages for the chat message "HI THERE." '901 patent at col. 16:6-7.

Plaintiff's Opening Brief, (hereinafter "Pl. Op. Br.") at 9:8-11. However, the patent specifically includes Figure 16A as an example textured message. Thus, Forterra's argument is not convincing. Forterra argues that IMVU improperly attempts to define "texture" as "text." The patent teaches that a "chat wad object" includes a chat message, author name, author key, time (of message receipt), channel, and drawing parameters. 11:16-21. The drawing parameters include texture, font, color, point size, transition state, transition sound, transition animation and chat mode. 11:22-27. Additionally, the patent describes drawing parameters as "about the texture": "Local chat message wad 1106 is made up of multiple objects, including: the actual chat (i.e., text) message, texture, some drawing parameters about the texture, the author's name of the message, etc." 8:24-27 (emphasis added). Thus, texture is not the text, but rather all of the display attributes of the text in the chat message. Accordingly, a construction that would equate texture with text would be incorrect because the patent clearly discusses text as separate from texture. However, IMVU's construction of "The recipient interface generates the appearance of the chat message" does not equate text with texture. Instead, the construction defines the process of taking the chat message and choosing the display parameters to create the appearance of the chat message in the Three-Dimensional Multi-User Environment. This is consistent with the language of the patent. Because IMVU's proposed construction is susceptible to the interpretation asserted by Forterra, the court opts for different language.

For the foregoing reasons, the court construes "Maps (Or Mapping) the Message to a Texture to Generate a Textured Message" to mean the "generating a graphic image of the text message, including choosing appearance attributes such as font, color, point size and background pattern." This definition is consistent with all embodiments disclosed in Figure 16A.

# B. Renders (Or Rendering) Said Textured Message at Locations along a Path in the Three-Dimensional Multi-User Environment, Whereby the Recipient Can Visually Ascertain at Least Portions of the Path of the Textured Message Through Said Recipient Viewport

Forterra claims that this term is clear on its face and requires no construction. To the extent that the terms needs construction, Forterra asserts:

produces a textured message and determines where it is displayed at locations along a path in threedimensional multi-user environment, whereby the recipient can visually ascertain at least portions of the path of the textured message through said recipient viewport.

#### In contrast, IMVU assets:

Causing the chat message to be displayed at three-dimensional locations along a path through which the chat message travels within the three-dimensional multi-user environment, such that the recipient can visually determine at least portions of the path of the chat message. Not merely causing the chat message to be displayed as a two-dimensional element overlaying the three-dimensional viewport.

At the heart of the dispute is the question of whether "rendering in the Three-Dimensional Multi-User

Environment" requires a three-dimensional rendering of the message. The question is not whether the message needs to be rendered as a three-dimensional object, but rather whether the message is rendered in the 3D world or merely overlaid upon the world. In the first case, the message has at least one position on the z-axis (the dimension measuring movement toward and away from the viewer.) As a result, the message appears larger when it is closer to the viewer than it would if it were farther away. In the second case, the message is not part of the 3D world, but is instead merely pasted on the windshield and appears to hover in 3D space. FN4 The parties agree that the patent covers a 3D rendering of the message, but disagree as to whether the patent also covers a chat message that is merely overlaid upon the environment.

FN4. A computer screen has only two dimensions. In order to portray the illusion of the third dimension (depth), a virtual camera takes a picture of the three dimensional world and that picture is displayed on the user monitor. In the present invention, the virtual camera follows the user's avatar. Thus, the camera will display the portion of the 3D world that is visible to the Avatar. "The windshield of the present invention is a plane projected in front of a user's camera. Objects "stuck to" the windshield appear to be hovering in 3D space." 7:31-34.

The extensive briefing and argument devoted to the proper construction of this term amply shows that the term is in need of construction. Additionally, even if certain words are clear, patents are written in phrases and each word in a phrase must be interpreted with reference to the words around it. *On* Demand Machine Corp. v. Ingram Industries, Inc., 442 F.3d 1331, 1344 (Fed . Cir.2006) ( "Care must be taken lest word-by-word definition, removed from the context of the invention, leads to an overall result that departs significantly from the patented invention."); *see also* Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc., 334 F.3d 1294, 1299 (Fed.Cir.2003) ("While certain terms may be at the center of the claim construction debate, the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.) Forterra's assertion that this (and other terms) require no construction is contrary to the teaching of Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370 (1996) that the court must determine the meaning of the claim terms as a matter of law. Similarly, the construction offered by Forterra for this term does not resolve the disputes between the parties. Accordingly, adopting the exact words of Forterra's proposed construction would also fail to comport with *Markman*'s directive.

The words of the patent are the best guide to the meaning of terms. Accordingly, the discussion begins with the actual words of the patent.

# 1. Patent describes animation of all messages

The patent explains in the "System Architecture Overview" that the

Chat local display 112 maintains and tracks a list of chat message wads. Each chat message wad contains one chat message, along with state and structures required to *animate and display* the chat message in the 3D world.

6:42-45 (emphasis added.) Thus, the patent teaches that messages are not merely displayed, they are also "animated." In the next section, entitled "User Interface Objects of the present invention", the patent explains:

Also there is a 3D animation or message transition from the sender Avatar to local chat area **1107** when a message object is sent. This animation helps to further link the chat message wad **1106** with the sender in the 3D world. Thus, every new message object is added to local chat area **1107** with a 3D animation.

#### 8:1-6 (emphasis added.) Similarly, the patent repeats:

Also described above, is how chat local display **112** handles the 3D animation or message transition from the sender Avatar to local chat area **1107** when a message object is sent. This animation helps to further link the chat message wad **1106** with the sender in the 3D world. *Every new message object is added to local chat area* **1107** *with a 3D animation*.

#### 11:5-11 (emphasis added.).

Forterra argues that the patent references to a 3D animation for every message, when read in context, refers only to every message in a preferred embodiment described by Figure 15. Forterra's argument is not persuasive for several reasons.

### a. The language is not found in a discussion of Figure 15

First, the quoted language does not refer to Figure 15. The first statement that every new message must have a 3D animation occurs during a discussion of Figure 11. The first iteration appears in Section C. "User Interface Objects of the Present Invention." Section C discusses Figure 11, an exemplary screen layout. The second iteration appears in Section E "Chat Local Display of the Present Invention." Section E is devoted to Figure 3 and the workings of the chat local display, which maintains and tracks a list of chat message wads. Figure 15 is not discussed in connection with either instance of the statement. In fact, a text search of the patent reveals that Figure 15 is not discussed at all until after the two cited "every message" statements.

#### b. The Context of the Statements Reveals No Intent to Limit them to a Preferred Embodiment

In the column prior to the first instance of the statement, the specification limits the discussion in one aspect as applying only to one embodiment. "In FIG. 11, the exemplary screen layout includes 3D viewport 1100. In one embodiment of the present invention, 3D viewport 1100 is the entire screen." 7:14-16. Accordingly, the patent drafter knew how to isolate a feature that applied only in certain embodiments from one which was common to all. The specification then discusses the advantages of having the entire screen available for the 3D viewport. The specification then describes how 2D user interface objects are "overlaid on 3D viewport" in order to help create one experience for the user. 7:25-26. The first iteration starts a new paragraph at the top of Column 8.

Also there is a 3D animation or message transition from the sender Avatar to local chat area **1107** when a message object is sent. This animation helps to further link the chat message wad **1106** with the sender in the 3D world. Thus, every new message object is added to local chat area **1107** with a 3D animation.

8:1-6. Importantly, there is no limitation in the quoted language that would limit it to a preferred embodiment.

The second instance of the "every message" statement in context is:

As described above, chat local display 112 maintains and tracks a list of chat message wads. Each chat

message wad contains one chat message, along with state and structures required to animate and display the chat message in the 3D world. The chat message includes the message sent by the user, the time, recipient animation attributes, appearance attributes, and so forth. Chat local display 112 takes input 308 (i.e., text chat message) and creates a new chat message wad. Also described above, is how chat local display 112 handles the 3D animation or message transition from the sender Avatar to local chat area 1107 when a message object is sent. This animation helps to further link the chat message wad 1106 with the sender in the 3D world. Every new message object is added to local chat area 1107 with a 3D animation. The transition helps to cue the user as to the location of the Avatar communicating with him or her.

10:64-11:12. The patent drafters easily could have said "in certain embodiments, every new message objected is added with a 3D animation." Instead, there is no suggestion in the context that "every message" means "every message in a preferred embodiment."

#### c. Figure 15 Does Not Limit 3D Animation to a Preferred Embodiment

Forterra's argument is not persuasive even assuming, *arguendo*, that the language refers only to Figure 15. The section in which Figure 15 is described is entitled "3D to 2D Chat Message Transitions According to the Present Invention." The discussion of Figure 15 includes over a dozen places where certain features apply only to some "embodiments." For example, the specification states:

In an embodiment, the texture **602**, font **604**, color **606**, and point size **608** drawing parameters are each selectable by the sender of the chat message via the sender's GUI, thereby allowing the sender to personally customize his or her textured messages.

16:17-21. Similarly, the patent teaches:

In embodiments, the rendering position of the textured message is calculated in step 1516 to progress along a path beginning at the start point determined in the earlier step 1510 and terminating at the end point determined in the same earlier step.

17:32-36. More importantly, the patent also states:

As discussed above, as a result of the final rendering step **1516** in the 3D transition, the textured message appears on the bottom of the recipient's viewport, where it is then maintained as essentially a 2D element. In embodiments, the textured message remains in this position until the recipient receives another message that appears as a textured message on the bottom of the recipient's viewport.

20: 46-52.

Although it is evident that the patent drafter knew how to limit the discussion to embodiments, the inclusion of a 3D animation is never limited to embodiments.

Forterra argues that the context of the statement is that when the patent introduces Figure 15, it explains:

Figures 15A-15B depict a flowchart **1502** of a method for delivering a chat message in accordance with the present invention. The invention, however, is not limited to this functional description. Rather, it will be apparent to persons skilled in the art from the teachings herein that other functional flows are within the

scope and spirit of the present invention.

15:31-36. This language can fairly be read to mean that not every step must be performed in an identical manner. It cannot, however, be stretched to mean that the advantage of the invention, described in detail in the flowchart, is not necessary to the invention.

Forterra also cites to two additional places in the patent that it argues indicate that, despite language to the contrary, no 3D rendering is necessary. Forterra cites to the section immediately preceding the "Detailed Description of the Preferred Embodiments":

Although several preferred embodiments of the present invention are particularly shown and described below, one skilled in the art will appreciate that various changes in forms and details may be made without departing from the spirit and scope of the invention as defined in the appended claims.

5: 6-11. Finally, Forterra cites to the language that appears at the end of most specifications:

Although the invention has been particularly shown and described with reference to several preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined in the appended claims.

25:62-67. Removing the process that is described as the advantage of the invention over the prior art (the three dimensional rendering of the message), would not be a "change in form and detail" any more than it would be a "change in functional flow." *See On Demand Machine Corp.* v. Ingram Industries, Inc., 442 F.3d 1331, 1340 (Fed.Cir.2006) ("when the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope.") Accordingly, this language does not mean that the patent is broad enough to cover a two dimensional display of a text message as an overlay to the Three-Dimensional Multi-User Environment.

# 2. Patent Describes 2D Rendering of Messages Only After a 3D Rendering

Forterra argues that the patent does not distinguish between 2D and 3D renderings and therefore covers rendering chat messages in two dimensions and in three dimensions. Forterra is correct that the claim language does not require that the message be rendered in three dimensions, only that it be rendered in the Three-Dimensional Multi-User Environment. The patent does, however, consistently describe the 2D rendering of chat messages as occurring only *after* the 3D transition.

# a. Figure 15 Describes 2D Subsequent to 3D

As discussed above, the section of the patent is entitled "3D and 2D Chat Message Transitions According to the Present Invention" FN5 describes Figure 15 and the process for a 3D transition followed by a 2D transition.

FN5. This section appears to be Section I. It follows Section H and precedes Section J. This heading has no "I", but the patent contains no Section I.

As a result of the final rendering step 1516, the textured message appears on the bottom of the recipient's

viewport, where it remains until it is displaced by other textured messages as will be discussed in more detail below. As shown in step **1520**, the chat local display **112** then changes the transition state **610** from "3D transition" to "2D transition" and sets the number of steps **N2** for a *subsequent* 2D transition. 20:7-11 (emphasis added.). The patent continues: "as a result of the final rendering step **1516** in the 3D transition, the textured message appears on the bottom of the recipient's viewport, where it is then maintained as essentially a 2D element." 20:46-49. Similarly, the patent recaps: "As also discussed in regard to FIG. **15** above, in embodiments, textured messages are maintained as 2D elements at the bottom of the recipient's viewport *after* the 3D transition until another textured message is received." 21:65-67 (emphasis added.)

Thus, the patent discloses the maintenance of chat messages as 2D elements in addition to, and not instead of, maintaining the messages as 3D transition.

# b. Figure 20's Depiction of Messages Visible When Avatars are Not Does Not Show that the Invention Covers 2D Overlays

Forterra argues that the messages must be overlaid as opposed to rendered in the 3D world because the messages are visible even when the sender is not in view. Ferraro Decl. para. 101. Forterra cites to Figures 20C and 20F as proof. In Figure 20C the avatars and the messages are both visible, while in Figure 20F only the messages are visible. Forterra argues that the visibility of the messages without the avatars is proof that the messages are mere overlays. However, the patent again is inconsistent with Forterra's arguments. The patent cites to Figures 20A through 20F as showing "how textured messages are managed as two-dimensional elements on the recipient's 3D viewport in embodiments of the invention." 23:16-18. The patent describes figures 20A-F: "Avatar 2006 has sent a chat message to the recipient which now appears as part of a textured message 2010 on the recipient viewport 2002." 23:21-23 (emphasis added). The patent states:

In addition to the functions outlined above, the chat local display **112** is responsible for managing the textured messages as two-dimensional elements on the recipient's 3D viewport *after the 3D and 2D transitions have occurred* but before the textured messages are scrolled off. In embodiments, the chat local display **112** displays the textured messages as 2D elements that are in horizontal alignment with the appearance of the digital representation of the sender when the digital representation of the sender is in the field of vision of the recipient's 3D viewport. This is demonstrated, for example, in FIGS 20A-20E....

23:26-36. Thus, Figure 20 shows that the messages are maintained as 2D elements only *after* the 3D transition is complete and not an embodiment in which chat messages are never rendered as 3D elements.

Forterra argues that Figures 20A-D and Figures 20E-F each describe an embodiment of the invention in which no 3D rendering is required. Forterra argues:

Unlike Figs. 18 and 19 where the message traveled along a path as a 3D transition from the sender to the recipient, 'in this embodiment, the chat local display 112 displays the textured messages as 2D elements that are in horizontal alignment with the appearance of the digital representation of the sender.' *Id.* at col. 23:30-34 (emphasis added).

Pl. Op. Br. at 18:2-5. As quoted just above, the patent actually says: "In embodiments, the chat local display 112 displays the textured messages as 2D elements that are in horizontal alignment with the appearance of the digital representation of the sender .... 23:30-34 (emphasis added.) While the change seems minor, it is significant. "In this embodiment" implies that a separate embodiment is being described. "In embodiments"

implies a feature of multiple embodiments of the patent, as opposed to describing a distinct and particular embodiment described by a figure. This is the situation presented here. In embodiments of the invention, the messages are maintained as 2D elements after the 3D and 2D transitions.

Moreover, the patent also discloses the messages as 3D elements when the sender is not visible on the 3D viewport. Figures 19A-F show an embodiment where the "start point for the 3D transition" is the senders avatar and the sender's avatar is not visible on the viewport. 22:40. In this embodiment, the message "is periodically rendered in the 3D world" starting at a location outside the viewport and curving in a manner that indicates the location of the sender as either to the left or right of the part of the world displayed in the viewport. 22:40-23:15. Thus, Forterra is not convincing when it argues that a message appearing when the avatar is not visible proves that the invention includes messages that are overlaid on instead of rendered in the 3D world.

#### c. Claim differentiation

Claim differentiation is based on the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope. *See* Comark Communications Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed.Cir.1998). Additionally, limitations stated in dependent claims are not to be read into the independent claim from which they depend. Karlin Technology, Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 972 (Fed.Cir.1999). Claim differentiation applies only when a proposed construction would make a claim superfluous. Comark Communications, Inc., 156 F.3d at 1187.

## Claim 24 depends from claim 1:

The system of claim 1, wherein said recipient interface displays said textured message as a two-dimensional clement [sic] on said recipient viewport after rendering said textured message in the three-dimensional multi-user environment.

Claim 24 (27:30-33) (emphasis added.) Similarly, Claim 87 depends from independent claim 86 and recites:

87. The computer program product of claim 86 further comprising means for enabling at least one processor to display said textured message as a two-dimensional element on the recipient viewport after rendering said textured message in the three-dimensional multi-user environment.

Claim 87 (34:40-45.)

Forterra argues that the doctrine of claim differentiation applies here and shows that the independent claims do not require a 3D animation. IMVU argues that claim differentiation applies in that if the independent claims covered a 2D rendering, then the dependent claims would be superfluous.

Forterra argues that independent claims must be broader than the claims that depend from them and that the independent claims do not contain the additional limitation found only in the dependent claims. Thus, Forterra argues that if the dependent claims require a 2D rendering, the independent claims can be either a 2D or a 3D rendering.

However, claims 24 and 86 use the word "after." If the dependent claim said rendering the text message in

the Three-Dimensional Multi-User Environment "wherein the text message is displayed as a 2D element", then Forterra would be correct that the independent claim would cover both the 3D rendering and the 2D rendering. However, the dependent claims require the 2D rendering only after "rendering said textured message in the three-dimensional multi-user environment." If the "rendering said textured message in the three-dimensional multi-user environment" could be a 2D rendering, the additional limitation would be superfluous, requiring a 2D rendering after a 2D rendering.

Moreover, there are two crucial difference between the words chosen in the independent and dependent claims. The dependent claims require the invention to "display(s) said textured message as a two-dimensional element on the recipient viewport" (after rendering said textured message in the three-dimensional multi-user environment). In contrast, the independent claims require "rendering in the Three-Dimensional Multi-User Environment." The two crucial differences are "display" instead of "render" and "on the viewport" instead of "in the Three-Dimensional Multi-User Environment."

The choice of different words for different claims is consistent with the patent drafters use of those words throughout the patent. The patent drafters chose "render in the Three-Dimensional Multi-User Environment" when they meant animate in the 3D space and they chose "display on the viewport" when they meant overlay as a 2D object not in the 3D world.

For example, as described above, the patent describes how Figures 20A-F "show how textured messages are managed as two-dimensional elements *on the recipient's 3D viewport* in embodiments of the invention." 23:16-18 (emphasis added). This display occurs after the 3D transition. Accordingly, after the 3D transition is complete, then the messages are 2D elements and they are "displayed on the viewport" as opposed to "rendered in the 3D environment."

Similarly, the patent draws a distinction between things overlaid "on the 3D viewport" and things rendered "in the 3D viewport." The patent discloses that:

2D user interface objects are overlaid *on* 3D viewport **1100** over the view into the 3D world to help create one experience for the user. A camera is a logical object that follows the user's Avatar and provides the perspective on the rendered scene. What is rendered *in* the 3D viewport **1100** is determined by the camera's position, orientation and field of view.

7:25-31 (emphasis added). Thus, objects that are rendered in the viewport are those that have a 3D animation and position on the Z axis in the 3D world, whereas objects that are overlaid "on" or displayed "on" the viewport do not have a 3D animation and hover in front of the 3D world without any position on the Z axis.

Similarly, the abstract specifically describes 2d elements as "on the viewport" and messages as "in the environment." The abstract states that the recipient interface is used to "render the textured message *in the 3D multi-user environment* so as to permit the recipient to visually ascertain the location of the digital representation of the sender in the 3D world. Received messages are mantained [sic] as two-dimensional elements *on a recipient viewport*." Abstract, p. 1.

Finally, Claim 35 is also illustrative:

The system of claim 34, wherein said recipient interface displays said textured message as a two-

dimensional element on the recipient viewport after periodically rendering said textured message along a path between said location of the digital representation of the sender and said location of the digital representation of the recipient.

28:43-48. This claim includes the requirement of Claim 34 of 3d rendering "in the three-dimensional multi-user environment along a path between said location of the digital representation of the sender and said location of the digital representation of the recipient" (28:36-39) with the additional element that the 2D message is displayed "on the recipient viewport" after the original rendering along a path. See also Claim 65 ("The method of claim 42, further comprising the step of displaying said textured message as a two-dimensional element on the recipient viewport after rendering said textured message in the three-dimensional multi-user environment." (31:23-27)

#### 3. Rendered In Environment vs. In World

Forterra asserts that IMVU's requirement of "not merely causing the chat message to be displayed as a two-dimensional element overlaying the three-dimensional viewport" is inaccurate because "[t]he textured message is never rendered into the 3D world." Plaintiff's Reply Brief (hereinafter "Pl. Reply Br.") at 13:19-20, *citing* Ferraro Decl. para.para. 99-101; see also Pl. Op. Br. at 20: 16-19.FN6

FN6. The arguments of Mr. Cooper, counsel for Plaintiff, contradict this argument. Mr. Cooper stated "if you're not rendering the message in the 3D world in this patent, you're not practicing what the patent says" (Tr. 110:20-23)

#### a. Patent discloses messages in 3D world

As IMVU forcefully argues, the patent specifically discloses that the message is rendered "in 3D space" in contradiction of Forterra's argument that the message appears in the Three-Dimensional Multi-User Environment but not in the 3D world. In fact, the patent discloses messages rendered in the 3D world on multiple occasions: "Each chat message wad contains one chat message, along with state and structures required to animate and display the chat message in the 3D world." 10:65-11:1 (emphasis added); see also 16:54-56 ("thereby ensuring that the textured message will be legible to the recipient when it is rendered in 3D space."); 17:22-25 ("the chat local display 112 calculates a rendering position in the 3D world at which to render the textured message and renders the textured message at that location."); 21:48-49 ("periodically renders the textured message in 3D space") 21:52-55 ("This 3D transition is shown in FIGS. 18A-18D, where the textured message 1810 corresponding to the chat message 'Hi there' is periodically rendered in the 3D world:); 22:4-6 ("Figs. 18D-18F, where the textured message 1812 corresponding to the chat message 'Hello' is periodically rendered in the 3D world") and 22:53-54 ("This is shown, for example, in FIGS. 19A-19F, where the textured message 1908 corresponding to the chat message "Turn around!" is periodically rendered in the 3D world").

#### b. Definition of Three-Dimensional Multi-User Environment

Forterra argues that the Three-Dimensional Multi-User Environment is the client server system: "The patent defines a 'three-dimensional multi-user environment' as the client-server system where 'the server maintains a virtual 3D space and the client provides the user interface to that space.' '901 patent at col. 1:45-47." (Pl. Op. Br. at 20:10-12). Forterra then argues that messages are rendered in the client server system, but never in the 3D world. IMVU contests that the Three-Dimensional Multi-User Environment is the client server

system. As IMVU asserts, the patent states that "3D multi-user environments are often *implemented in* client-server systems, in which the server maintains a virtual 3D space and the client provides the user interface to that space." 1:44-47 (emphasis added.) Thus the patent does not define the Three-Dimensional Multi-User Environment as the system. Moreover, as IMVU points out, if the Three-Dimensional Multi-User Environment were the client server system, this patent language would be gibberish. This is shown by replacing the "Three-Dimensional Multi-User Environment" with "client server system" resulting in "client server systems are often implemented in client server systems." Accordingly, Forterra's argument that the patent language claiming rendering in the Three-Dimensional Multi-User Environment was chosen to have a meaning other than rendering in the 3D world is not persuasive.

#### c. Figure 18 describes rendering in 3D space

Forterra expert Ferraro asserts "The textured messages in the '901 patent are rendered onto the two-dimensional background overlaying the background as shown in Figure 37." Ferraro Decl. para. 99. Figure 37 is a colored rendition of figures 18B and 18E of the patent. The '901 patent, however, specifically describes Figures 18A through 18 D as describing a particular 3D transition in the embodiment where the message travels from the sender to the recipient. In this embodiment, the chat local display

periodically renders the textured message in 3D space on a path beginning at the location of the user's Avatar and terminating at the location of the recipient's Avatar, which coincides with the location of the recipient's viewport. This 3D transition is shown in FIGS. 18A-18D....

21:48-53.

Moreover, in Figure 18, the message gets larger as it moves from the starting location in Fig. 18A to its resting place in Figure 18D. This is consistent with the message moving in the 3D space and getting closer to the viewport from farther away in the 3D world. *See* Damer Decl. para. 6 ("The changing size of the chat messages is indicative of their movement towards and away from the viewer, which, in 3D technical terms, is referred to as translation along the 'z-axis.' ")

Thus, Figure 18 describes a 3D transition, not a 2D overlay.

# d. Claims relating to virtual space

Forterra also asserts that the patent claims do not reference the 3D world because the "patent drafter would be the laughing stock of the patent world if he did." (Tr. at 49:13-15.) Forterra argues that because the 3D space is virtual, as opposed to real, a patent cannot claim to cause things to appear in 3D space. However, the creation of the virtual space and the creating of the appearance of things happening in that virtual space can be claimed. All of the acts necessary to cause the appearance of things in virtual space happen in real space and can be claimed.

# 4. Problem to be solved is location of the digital representation of the sender

In construing claims, the problem the inventor was attempting to solve, as discerned from the specification and the prosecution history, is a relevant consideration. CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1160(Fed Cir.1997). Moreover, "when the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope." *On* Demand Machine Corp. v. Ingram Industries, Inc., 442 F.3d 1331, 1340 (Fed.Cir.2006).

The main problem that the invention is designed to address is the ability to identify the location of the sender in the 3D world.

The patent discloses that the use of chat in Three-Dimensional Multi-User Environment was known in the prior art. "Conventional systems that combine chat with a 3D multi-user environment typically display chat messages in a 2D window that is adjacent to, or overlays, the 3D viewport." 1:56-59. Thus, systems using a 2d overlay of chat messages on a Three-Dimensional Multi-User Environment are "conventional systems" upon which the invention was attempting to improve.

These systems, however, made it difficult for the user to match up messages with avatars because the user had to scan different interfaces. The patent adds that "These systems are also disadvantageous in that they do not indicate in 3D space the direction from which a chat message originated. As a result, the recipient of the chat message is not given an indication of the location of the digital representation of the sender in the 3D world." 2:32-34.

The emphasis on the location of the sender is also disclosed in the "Overview of the Invention," where the patent states that the textured message is rendered in the Three-Dimensional Multi-User Environment "in a manner that permits the recipient to visually ascertain the location of the digital representation of the sender in the 3D world." 5:27-30. In order to locate something in the three dimensional world, the object must be identified by all three dimensions (height, width, and depth). In conventional systems, where the message was merely overlaid on the environment, the message had no position on the z-axis (no depth). In order to solve this problem, the invention adds something new: it renders the message with a 3D animation and a position on the z axis. Because the message has a position in the 3D world, the user can ascertain the location of the sender of the message.FN7

FN7. IMVU submitted declarations from the inventors as to the intended scope of the invention. Forterra correctly argues that inventor testimony is entitled to no deference. E-Pass Technologies, Inc. v. 3Com Corp., 343 F.3d 1364, 1370 n. 5 (Fed.Cir.2003). Accordingly, the Court has not considered the inventor declarations.

#### 5.3D Locations

Forterra also argues that the term "three dimensional locations" makes no sense because the screen is in 2D (the screen has only horizontal and vertical dimensions.) Forterra asserts that the patent contains no references to a three dimensional location. (Pl. Op. Br. at 21.) However, the patent references "3D position" of a chat message:

In FIG. 3, chat local display 112 receives inputs from various components of local chat system 108 (including 3D positions of potential Avatars 304.... Chat local display 112 uses inputs 304, 306 and 308 to produce the message graphic in 3D and its 3D position, as indicated by output 316.

10:38-48 (emphasis added.); see also 17:23-25 (the chat local display "[c]alculates a rendering position in the 3D world at which to render the textured message and renders the textured message at that location.") Accordingly, the patent language does recognize the three-dimensional location or position of the chat message.

#### 6. Patent does not disclose rendering messages as overlays

Forterra argues against IMVU's construction that the message cannot merely be an overlay, claiming that the "specification explicitly allows for an object to be rendered as an overlay: 'hi there' is *rendered using a white overlay* against a shaded background. '901 patent at col. 16:58-59" Pl. Op. Br. at 23-24 (emphasis added in Plaintiff's brief.) Forterra's argument misses the mark. In context, the specification states:

For example, the chat local display 112 can select a texture 602 for the textured message that appears as an overlay of the original chat message 308 (i.e., the outline of the message is solid, but the message itself is transparent), and a color 606 for the textured message that is different than the color of the portion of the 3D world in which the textured message will be rendered, thereby ensuring that the textured message will be legible to the recipient when it is rendered in 3D space. An example of this is shown in FIG. 19C,FN8 where the textured message corresponding to the chat message "Hi there" is rendered using a white overlay against a shaded background.

FN8. This appears to be a clerical error in the patent, the patent is referring to figure 16 C.

16:48-59. Thus, the specification discloses rendering the message "using" an overlay as opposed to "as an overlay." The patent is describing an embodiment in which the chat local display chooses a texture to ensure legibility when the message is rendered in the 3D world, as opposed to a message merely overlaid upon instead of rendered in the 3D world.

Forterra also asserts that the specification discloses rendering of 2D objects. For example, Forterra cites to rendering of the toolbar and the tool tip. Forterra points to "the tool tip manager is responsible for determining who should display a tool tip and render it for the user." 9:54-55. IMVU correctly counters that the patent uses "render" for 2D objects, but not "render in the Three-Dimensional Multi-User Environment."

Moreover, the patent discloses overlays as typical in the prior art. "Conventional systems that combine chat with a 3D multi-user environment typically display chat messages in a 2D window that is adjacent to, *or overlays*, the 3D viewport. " 1:56-58 (emphasis added).FN9 Thus, the patent specifically distinguishes the invention from conventional systems in which the 2D window overlaid the environment. Accordingly, the words of the patent and the state of the art support an interpretation that excludes text messages merely overlaid upon the Three-Dimensional Multi-User Environment.

FN9. Tellingly, Forterra ignores the patent's recognition of overlays in the prior art when it asserts: "prior art systems that combined chat messages with a 3D multi-user environment typically displayed the chat messages in a separate 2D window adjacent to the 3D viewport. '901 patent at col. 1:56-58." Pl. Op. Br. at 2:13-15.

For all of the foregoing reasons, the court construes "Renders (Or Rendering) Said Textured Message at Locations along a Path in the Three-dimensional Multi-user Environment, Whereby the Recipient Can Visually Ascertain at Least Portions of the Path of the Textured Message Through Said Recipient Viewport" to mean "Causing the chat message to be displayed at three-dimensional locations along a path through which the chat message travels within the three-dimensional multi-user environment, such that the recipient can visually determine at least portions of the path of the chat message. Not merely causing the chat

message to be displayed as a two-dimensional element overlaying the three-dimensional viewport."

# C. Renders (Or Rendering) Said Textured Message in the Three-dimensional Multi-user Environment So as to Permit the Recipient to Visually Ascertain the *Location of the Digital Representation* of the Sender

Forterra claims that this term requires no construction. For the reasons stated above, the court finds that the term requires construction under *Markman*. To the extent that the Court determines this phrase needs to be construed, Forterra asserts the phrase should be construed to mean: "produces a textured message and determines where it is displayed in the three-dimensional multi-user environment, so as to permit the recipient to visually ascertain the location of the digital representation of the sender."

IMVU asserts: "Causing the chat message to be displayed at one or more three-dimensional locations within the multi-user environment such that the recipient can visually determine the three-dimensional location of the digital representation of the sender within that environment. Not merely causing the chat message to be displayed as a two-dimensional element overlaying the three-dimensional viewport."

Forterra argues that this claim term, requiring no rendering along any path, is from the broadest claim in the patent. Although Claim 39 is undoubtedly broader than claim 1, for all of the reasons stated in the previous section, the Court determines that the rendering in the Three-Dimensional Multi-User Environment requires a 3D animation in this term as well as in the previous term.

IMVU's proposed construction, however, goes too far in requiring that the user visually determine "the three-dimensional location of the digital representation." The specification discloses embodiments where the digital representation of the sender is not visible in the viewport. In these instances, the user can determine the approximate location of the digital representation of the sender, but not the "three-dimensional location."

Accordingly, the court construes the term "Renders (Or Rendering) Said Textured Message in the Three-dimensional Multi-user Environment So as to Permit the Recipient to Visually Ascertain the Location of the Digital Representation of the Sender" to mean "Causing the chat message to be displayed at one or more three-dimensional locations within the multi-user environment such that the recipient can visually determine the location of the digital representation of the sender within that environment. Not merely causing the chat message to be displayed as a two-dimensional element overlaying the three-dimensional viewport.

#### **D. Means Plus Function Terms**

A claim element may be drafted in means-plus-function format: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. s. 112, para. 6. The construction of a means-plus-function limitation includes two steps. JVW Enters. v. Interact Accessories, Inc., 424 F.3d 1324, 1329 (Fed.Cir.2005). First, the Court determines the claimed function. Id. at 1330. Second, the Court identifies the corresponding structure in the written description that performs that function. *Id.* District courts are cautioned against two common errors. First, a court may not construe a means-plus-function limitation "by adopting a function different from that explicitly recited in the claim." Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1258 (Fed.Cir.1999). Second, a court errs "by importing the functions of a working device into the [] specific claims, rather than reading the claims for their meaning independent of any working embodiment." Rodime PLC v. Seagate Tech., Inc., 174 F.3d

1294, 1303 (Fed.Cir.1999). "In order to qualify as corresponding, the structure must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function." Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1113 (Fed.Cir.2002). Structural features must be necessary to perform the claimed function and not merely enable the structure to operate as intended. Asyst Technologies, Inc. v. Empak, Inc., 268 F.3d 1364, 1369-71 (Fed.Cir.2001).

Ordinary principles of claim construction govern interpretation of the claim language used to describe the function." Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1113 (Fed.Cir.2002); see also, e.g., Lockheed Martin Corp. v. Space Sys /Loral, Inc., 324 F.3d 1319 (Fed.Cir.2003) ("Having identified the function of [a means-plus-function] limitation, we next construe the meaning of the words used to describe the claimed function, using ordinary principles of claim construction.") FN10

FN10. Forterra's argument that it is improper for the court to construe the claim language used to define the function is not supported by the controlling case law.

#### 1. Means for Enabling at Least One Processor to Receive a Message

The parties agree that the function explicitly recited in the claim is "enabling at least one processor to receive a message." The parties also agree that figure 8, as described in column 14 is a corresponding structure. IMVU also asserts, in the Joint Claim Construction Statement, the following as corresponding structures: col. 5: 64-66; col. 8: 22-24; col. 11: 19-21 col. 10: 14-15; col. 14: 1-28; col. 15:50-51: col. 20:50-56; and col. 21:64-67. IMVU did not provide support, either in briefing or at the hearing, for the additional asserted structures. As the additional cited structures are not necessary to the function of enabling at least one processor to receive a message, the court finds that Figure 8, as described in column 14 at lines 1-28 to be the sole corresponding structure.

# 2. Means for Enabling at Least one Processor to Map Said Textured Message to a Texture to Generate a Textured Message

The parties agree that the function is "enabling at least one processor to map said message to a texture to generate a textured message." IMVU, however, wants to construe "textured message" to mean "appearance of a chat message." For the reasons discussed above, the court construes Maps (Or Mapping) the Message to a Texture to Generate a Textured Message" to mean the "generating a graphic image of the text message, including choosing appearance attributes such as font, color, point size and background pattern."

Forterra identifies the corresponding structure: "the computer program logic for mapping a message to a texture to generate a textured message" as described in figure 16 and col. 16:2-62. IMVU agrees that Figure 16, as described in column 16, lines 3 to 62, is a corresponding structure and again argues for a host more structures. IMVU again, however, provides no support for the assertion that the additional structures correspond. In the absence of any support for the additional structures, the Court finds that Figure 16, as described in column 16, lines 3 to 62, is the sole corresponding structure.

# 3. Means for Enabling at Least one Processor to Render said Textured Message in the Three-Dimensional Multi-User Environment so as to Indicate the Location of the Digital Representation of the Sender

Although the parties generally agree that the claimed function is "enabling at least one processor to render

said textured message in the three-dimensional multi-user environment so as to indicate the location of the digital representation of the sender," the parties disagree on the proper interpretation of that function. The parties agree that the computer logic that enables a processor to render the textured message three-dimensionally, as shown in figures 18, 19 and 21, are corresponding structures. Forterra wishes to include the computer logic encompassing programming that only overlays 2D messages elements on the 3D environment and IMVU wishes to exclude those structures. Thus, the dispute is whether Figure 20, described at Column 23 line 16 through column 24 line 11, is a corresponding structure. Figure 20 shows how the textured messages are managed as two-dimensional elements after the 3D and 2D transitions have occurred.

For the reasons discussed above, the court construes "render said textured message in the three-dimensional multi-user environment so as to indicate the location of the digital representation of the sender" to mean "Causing the chat message to be displayed at one or more three-dimensional locations within the multi-user environment such that the recipient can visually determine the location of the digital representation of the sender within that environment. Not merely causing the chat message to be displayed as a two-dimensional element overlaying the three-dimensional viewport." Accordingly, the corresponding structures are: Figs 18A-18D; col. 21: 37-63; Figs 19A-19F; col. 22: 28-col. 23: 15; and Figs. 21A-21F; col. 24: 12-41.

#### IV. CONCLUSION

For the foregoing reasons, It Is Hereby Ordered that the terms in dispute are construed as described within this Order.

IT IS SO ORDERED

N.D.Cal.,2006. Forterra Systems, Inc. v. Avatar Factory

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