IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

ERIC HAMILTON, Plaintiff, v. COMWEB TECHNOLOGY GROUP, INC. PLACEWARE, INC. WEBEX COMMUNICATIONS, INC. FIRST VIRTUAL COMMUNICATIONS, INC. SMART TECHNOLOGIES, INC. TERAGLOBAL COMMUNICATIONS CORP. WEBWISDOM.COM, INC. Defendants.	Civil Action No. MJG 02-CV-2438

DEFENDANTS TERAGLOBAL AND WAVE THREE SOFTWARE'S JOINT RESPONSE TO PLAINTIFF'S OPENING BRIEF ON CLAIM CONSTRUCTION

I. INTRODUCTION

In accordance with part C. 7. b. of the Scheduling Order in the above captioned matter, Defendants TeraGlobal Communications Corp. and Wave Three Software (collectively "TeraGlobal") hereby submit this Response to Plaintiff's Opening Brief on Claim Construction.

II. TERAGLOBAL'S GENERAL STATEMENT OF DISPUTED LANGUAGE

There are four general disputes in the claim construction, not three as Plaintiff contends: (1) "educational information", (2) "simultaneously and concurrently", (3) "virtually simultaneously and concurrently," and (4) "handwritten freehand form".

TeraGlobal contends that Claim 1 must be limited only to "educational information." The phrase was not in original Claim 1, or in any of the proposed amendments up until the Examiner himself, after final rejection, amended Claim 1 by modifying the word "information"

with the word "educational."[1] Although the amendment was obviously important to the patentability of the invention, the Examiner's reasoning for introducing the word "educational" into Claim 1 is not stated.

The terms "virtually simultaneous" is not the same as "simultaneous". As described in more detail below, "simultaneous" means happening, existing, or done at the same time. The term "virtually simultaneous", on the other hand, means apparently, as contrasted with actually or absolutely." Although, Plaintiff contends that there must be some time lag with any activity associated with the communication system, the patent clearly states the opposite. "[A]ll student activity is transmitted to the teacher's station as that activity occurs, the image of the newly selected student's work will immediately appear at the teacher's display." Exhibit A at 18, col. 2, line 68– col. 3, line 3. Thus, Claim 1 requires the input of educational information by a student to be displayed on the teacher's station apparently at the same time.

Lastly, Plaintiff is incorrect in its statement that TeraGlobal improperly narrows the meaning of "handwritten freehand form" such that its meaning is limited to "a stylus in direct contact with the display screen." This argument is contrary to the claim construction statement provided to the Court by TeraGlobal. TeraGlobal contends that "handwritten freehand form" means a form which is written by hand without the aid of tracing or drafting devices. Thus, the claim term is limited to devices capable of performing the functional equivalent of a handwriting device, i.e., a corded or cordless light pen, a pen-like object, a pen, and a stylus.

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[1] "Original" and "Once Amended" Claim 1 used the phrase "instructional information." In support of the patentability of amended Claim 1, Plaintiff argued that amended claim 1 recites "an instructional information system, preferably for use in an educational classroom setting…." See Exhibit B at 17. In his attempt to amend Claim 1 further, Plaintiff substituted "electronic information" for "instructional information." See Exhibit E at 8. However, before allowing the application, the Examiner amended Claim 1 by modifying the term "information" with the adjective "educational." See Exhibit G at 2.

III. THE COURT SHOULD ADOPT TERAGLOBAL'S CONTENTIONS REGARDING SPECIFIC CLAIM CONSTRUCTION ISSUES BECAUSE TERAGLOBAL'S ARGUMENTS RELY ON THE CLAIM'S PLAIN LANGUAGE, THE SPECIFICATION, AND/OR THE PROSECUTION HISTORY

Extrinsic evidence cannot be used to explain ambiguity in claim terminology or to vary the claim terms. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996); Markman v. Westview Instruments, Inc., 52 F.3d 967, 986 (Fed. Cir. 1995). "The invention protected by the patent must be covered by the claims, otherwise it is lost." Markman. 52 F.3d at 985. In determining the proper construction of an asserted claim, the Court should look first to the intrinsic evidence of record for guidance, i.e., the language of the claims, the specification, and the prosecution history. See id., 52 F.3d at 979. The court also may consult dictionaries and technical treatises, if necessary, to help the court understand the underlying technology or to find the ordinary meaning of a disputed term. See Vitronics Corp., 90 F.3d at 1584 n. 6 (emphasis added).

It is the intrinsic evidence that is the most significant source of the legally operative meaning of a disputed claim term or phrase. See id. at 1582. In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity of a disputed claim term or phrase. See id. at 1583. In such situations, it is improper to rely on extrinsic evidence, i.e., the patented invention, the accused products/services, and the accused products' documentation. See id.. Since the disputed claim terms or phrases, here, read in light of the language of the claims, the specification, and the prosecution history, clearly resolve any ambiguity, reliance on any extrinsic evidence is improper.

In Plaintiff's Opening Brief, the Plaintiff ignores the intrinsic evidence of public record, and instead he improperly relies on extrinsic evidence in support of his claim interpretation. Specifically, the Plaintiff improperly construes the terms "educational information",

"simultaneously and concurrently", "virtually simultaneously and concurrently", and "handwritten freehand form" by introducing into evidence the accused products' documentation, i.e., "WebEx Glossary", "TeraMedia 2.6.3 Demo User Guide", and "Wave Three Software User Guide – Session Plus Workspace version 1.1.0." The court should disregard the Plaintiff's interpretation of any claim term or phrase that is inconsistent with the language of the claims, the specification, and the prosecution history.

To allow the Plaintiff to rely on such extrinsic evidence, rather than the intrinsic evidence which makes up the public record, would cause the public record of the claimed invention to be improperly altered or changed. See id. citing Southwall Tech., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1578 (Fed. Cir. 1995) ("A patentee may not proffer an interpretation for the purposes of litigation that would alter the indisputable public record consisting of the claims, the specification and the prosecution history, and treat the claims as a 'nose of wax.'"). The public is entitled to rely on the established rules of claim interpretation to ascertain the scope of the patented invention. See id. Thus, if Plaintiff is permitted to alter the scope of the claims by introducing extrinsic evidence consisting of the accused products' documentation and inconsistent with the scope of the patent, this public right would be rendered meaningless. In other words, the Court should not permit the introduction of the accused products' documentation for the purpose of interpreting any asserted claim. Such evidence is highly prejudicial to the accused infringer.

Further, the accused products' documentation is not representative of what was known in the art at the time Plaintiff filed his patent application. The patent was filed on April 17, 1990. The documents cited by Plaintiff are written in 2001 and later. Thus, the documents are not representative of the plain and ordinary meaning of the terms as they existed in 1990.

TeraGlobal submits that the documents are irrelevant to the construction of the claim terms and phrases.

Moreover, the Patent Act requires the inventor to claim distinctly and point out particularly his invention. See 35 U.S.C. §112, ¶2. Given the disclosure requirements of Section 112 of Title 35, there should exist no "ambiguity" in the claim language to one of ordinary skill in the art that would require the resort to extrinsic evidence. Thus, the primary source of information concerning the claimed invention must be the claim language, the specification, and the prosecution history.

A. CLAIM 1

a. "A computer assisted electronic educational information communications system, comprising:"

Plaintiff and TeraGlobal disagree on the claim construction of the term "educational information. The Court should adopt TeraGlobal's claim construction of Claim 1 for the following two reasons: (1) Plaintiff's claim interpretation is inconsistent with the specification and prosecution history of the '520 patent, and (2) Plaintiff's claim interpretation improperly broadens the scope of the claims.

First, Plaintiff's primary argument is that the education of a student linked to a teacher should not be confined to a formal classroom setting. Plaintiff contends that "Any exchange of information is the education of the recipient by the provider of the information. An exchange of ideas (collaboration) is the education of all participants. Education is not confined to a formal classroom setting." However, Plaintiff's proposed claim construction is contrary to the patent specification and the prosecution history.

Plaintiff's proposed claim construction is not supported by the specification. The "Summary of the Invention" clearly discloses that the invention is a "computer assisted

instruction system for a classroom which allows a teacher to share an electronic sheet of paper with one or more students in a classroom." Exhibit A at 18, col. 2, line 25-28. Plaintiff's proposed claim construction is also not supported by the prosecution history. The claim was amended during prosecution to limit the computer system to an "educational information communication system". In fact, Plaintiff in the Amendment of August 5, 1991, argued that "in essence, the invention allows a teacher to interactively share an electronic sheet of paper with one or more students in the classroom." Exhibit B at 18. By clear evidence of the voluntary amendment, the Plaintiff intended that a classroom was a requirement of the invention. And the classroom environment can be at two remote-locations but it must be a classroom.

Second, Plaintiff's claim interpretation improperly broadens the scope of the claim by ignoring the claim language itself. The preamble reads, "A computer assisted electronic educational information communications system, comprising:". As used in the preamble, the term "education" is an adjective that modifies the noun "information". Plaintiff's proposed claim construction, however, improperly reads the term "educational" as a noun and thus improperly broadens the scope of the claim. Plaintiff contends "An exchange of ideas (collaboration) is the education of all participants." Thus, Plaintiff would ask this Court to consider the present invention to cover any exchange of ideas, i.e., e-mail disclosing daily salutations, company board meetings, taxi dispatch instructions, video telephone, interactive cable television selection, etc. However, the claim language restricts the term information to be used for educational purpose by a teacher and one or more students in a classroom.

TeraGlobal's claim construction is more appropriate. TeraGlobal contends that the claim preamble requires a computer assisted system for "providing training or knowledge not previously known to a student through formal schooling in a classroom setting having a defined

teacher or instructor and at least one defined student." This proposed claim interpretation is consistent with the language of the claims, the patent specification and prosecution history. Thus, for these reasons, TeraGlobal requests that the Court adopt its claim construction.

b. "at least two stations;"

Plaintiff contends that the phrase "at least two stations" needs no special definition. Thus, Plaintiff offers no evidence in support of his claim construction. However, TeraGlobal disagrees. TeraGlobal has defined the word "station" as it is used in the patent specification. The patent states that this system has at least two stations – one station for an instructor and one or more stations for students. See Exhibit A at 1, Patent Abstract. Further, a representative desk houses the software and computer hardware for either teacher or pupil. See id. at 20, col. 5, lines 3-5. Thus, the overall purpose of the term "station" is explicitly defined in the patent to mean a specialized desk for housing software and computer hardware for either an instructor or student. TeraGlobal requests that the Court adopt its claim construction because TeraGlobal defines this phrase as it is used within the four corners of the '520 patent.

c. "at least two monitor means, one associated with each of said stations, for displaying electronic educational information in visual form;"

Plaintiff contends that monitors are standard components which have known functions in a computer system. While this may be a correct statement, TeraGlobal contends that the phrase "monitor means" is in means-plus-function format and should be interpreted under 35 U.S.C. § 112, paragraph 6.

"Claim construction of a § 112, ¶ 6 limitation includes identifying the claimed function and determining the corresponding structure or act disclosed in the specification, both of which are questions of law." IMS Technology, Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1430 (Fed. Cir. 2000) (citation omitted). A claim limitation invoking 35 U.S.C. § 112, paragraph 6

exists if the phrase meets the following 3-prong analysis: (A) the claim limitations must use the phrase "means for"; (B) the "means for" must be modified by functional language; and (C) the phrase "means for" must not be modified by sufficient structure, material or acts for achieving the specified function. See Manual Patent Examining Procedure § 2181.

The claim here recites the phrase "means for" and is modified by functional language. The function is "for displaying electronic educational information in visual form." The clause at issue recites no structure, material or acts for achieving the function. Thus, the court should limit the phrase in light of and consistent with the written description of the invention disclosed in the '520 patent.

The corresponding structure disclosed in specification is monitor 102 or 203 built into a desk which is flush against the surface of the desk. See Exhibit A at 20, col. 5, line 5-8 and col. 6, line 66. The patent also discloses "[e]ach student's desk is equipped with a 14" monitor (i.e., "screen" or "display"). The monitor surface lies flat on the desk, flush with the desk's surface." See id. at 18, col. 2, lines 35-37.

TeraGlobal's proposed claim construction is in accordance with the means-plus-function format and the defined structures disclosed in the specification. The claim covers monitor 102 or 203 built into a desk and having a display which is flush against the surface of the desk. Plaintiff, on the other hand, ignores the structures disclosed in the specification and more importantly, the limitations of means-plus-function language.

Thus, the court should adopt TeraGlobal's construction of the term "monitor means".

d. "at least two input means, one associated with each of said stations, for simultaneously and concurrently entering said information in handwritten freehand form from each of said stations and to display on at least its associated monitor means; and"

The parties dispute the meaning of the phrases "simultaneously and concurrently entering" and "handwritten freehand form."

(i) "simultaneously and concurrently entering"

Plaintiff contends that there is no dispute as to the meaning of "simultaneously and concurrently entering". This view appears to be incorrect. Plaintiff in his Opening Brief, contends that the phrase "simultaneously and concurrently entering" should mean that each user can enter information at his/her station at the same time as the other users enter information at their stations – The entry of information is independent.

Indeed, TeraGlobal has defined the same phrase similarly. The "simultaneously" term as defined by TeraGlobal means happening, existing, or done at the same time. See Exhibit C at 11. But, TeraGlobal defines the term "concurrently" as referring to various methods in electronic data processing in which multiple instructions or operations of different instructions are executed simultaneously. See Exhibit D at 3.

Accordingly, the parties claim construction appears to be substantially similar. TeraGlobal proposes that the court's construction include both proposals, as follows: "simultaneously and concurrently entering" means the entering of educational information at the same time as the instructor or other students enter educational information.

(ii) "handwritten freehand form"

The parties disagree on the construction of the phrase "handwritten freehand form". Plaintiff contends that the phrase "includes any freehand sketch tool, as opposed to a text tool or tool which selects fixed geometric elements. The tool can be implemented with a mouse, a pen,

a digitizer pad, a touch screen, a stylus or any other freehand input devise." However, Plaintiff's proffered construction of "handwritten freehand form" impermissibly purports to broaden the scope of the claims to cover not only a pen or stylus, but any other freehand input device. This construction, however, ignores the claim language itself which limits the device to one which is "handwritten".

Plaintiff amended and limited Claim 1 after the Examiner rejected it as being unpatentable over Abrahamson et al., U.S. Patent No. 5,002,491, in view of Shapiro, U.S. Patent 4,785,472. Plaintiff argued that Abrahamson does not provide for the ability to input handwritten or freehand or graphical information into the system. Plaintiff's response to this rejection was to limit the freehand form to be "handwritten". See Exhibit E at 17. He stated that the use of a graphics tablet (or mouse) requires a substantially different kind of hand-eye coordination than the use of a pen or stylus for writing on the surface on which an image appears. See id., at 21. Thus, by virtue of Plaintiff's amendment, adding the adjective "handwritten", Plaintiff can not recapture any freehand form which is broader than the scope of amended Claim 1. Thus, TeraGlobal proffers its proper guidance for the construction of the phrase "handwritten freehand form".

The phrase should be given its meaning as contemplated by the its ordinary dictionary definition which is supported by the specification and prosecution history. The word "handwritten" means written by hand. See Exhibit C at 7. And the term "freehand" means without the aid of tracing or drafting devices. See id. at 6. Thus, TeraGlobal contends that the phrase "handwritten freehand form" means a form which is written by hand and drawn without the aid of tracing or drafting devises.

The specification supports TeraGlobal's claim construction. The specification states "The handwriting system is show here as 204, consisting of the pen or stylus (206)." Exhibit A at col. 6, line 64-65. Thus, TeraGlobal's construction of the term "handwritten freehand form" is of proper scope and is appropriately supported by the intrinsic evidence of the specification and the prosecution history. Whereas, Plaintiff improperly relies on TeraGlobal's product documentation. As stated above, there are numerous sources that the court may utilize for the proper construction of a claim. These sources are, the claims themselves, the patent specification and the prosecution history of the patent.

Thus, the Court should adopt TeraGlobal's construction because it is supported by the sources utilized for proper claim construction.

e. "communication means for virtually simultaneously and concurrently transmitting said information being entered simultaneously and concurrently at either of said input means from either station to other station, and for enabling the virtually simultaneous and concurrent display of said transmitted information on both of said monitor means associated with both of said stations such that said information being entered at a first input means simultaneously and concurrently appears on all of said monitor means while under the independent control of said first input means."

(i) "virtually simultaneously and concurrently"

Plaintiff contends that the phrase "virtually simultaneously and concurrently" means that the information does not have to appear on the other station at the same time as it is entered. This construction, however, is contrary to what Plaintiff previously argued to the Examiner to get his Claim allowed. Plaintiff argued that "[n]one of the prior art of record permits a first user at one location to enter handwritten information into his interactive display monitor, and transmit the same information virtually simultaneously to a second user at another location such that it appears that the two users are sharing the same interactive display monitor ." Exhibit B at 17

(emphasis in the original and added). Thus, Plaintiff's claim construction is not supported by his prior statements to the Examiner of the '520 patent.

Whereas, TeraGlobal's proposed claim construction position offers the Court the ordinary and customary dictionary definition of the words "virtually," "simultaneously" and "concurrently". Such that, "virtually" means apparently, as contrasted with actually or absolutely. The terms "simultaneously and concurrently" are discussed above.

Thus, the Court should adopt TeraGlobal's construction of "virtually" as meaning "apparently, as contrasted with actually or absolutely" which not only is the ordinary dictionary definition but is also supported by Plaintiff's prior statement to the Examiner.

B. CLAIM 2. "The system of claim 1, wherein one of said stations is adapted for an instructor and the other of said stations are adapted for students."

Plaintiff provides no support for its proposed claim construction of Claim 2. Plaintiff states that Claim 2 means "An instructor is the participant with control over the session in a collaboration system, often referred to as a presenter, moderator, host or administrator." However, because there is no support in the specification or prosecution history that suggests that the instructor must have control over the session or that the instructor is often referred to as a presenter, moderator, host or administrator, Plaintiff's interpretation is too broad and must fail.

Yet, the specification section entitled "Summary of the Invention" clearly describes the roles of the "teacher," "teacher's station," and "teacher's station [being] equipped with a single monitor", almost word for word the phrases used in the Claims – "instructor," "instructor's station" and "instructor's station's monitor". Thus, if anything, Plaintiff had intended that an instructor is also to be referred to as a teacher.

TeraGlobal's construction of Claim 2 construes the term "instructor" as meaning one who instructs; a teacher. The Court should adopt TeraGlobal's claim construction because it is supported by the patent specification.

C. CLAIM 4. "The system of claim 2, wherein said communication means selectively affords said instructor's station to selectively view said information displayed at said monitor means on any of said student's stations virtually simultaneously and concurrently to the time said information is being handwritten at said student's stations."

Once again, Plaintiff provides no support for its proposed claim construction. Plaintiff states unequivocally that Claim 4 means "If the session is not peer-to-peer but is controlled by one participant, the controlling participant can selectively view the other participant's screens." However, there is no support in the specification for peer-to-peer sessions or controlled sessions. In fact, Plaintiff's construction broadens the scope of Claim 4 beyond that which is supported by the plain language of the claim term as defined in the specification of the '520 patent.

TeraGlobal, on the other hand, has proposed a claim construction that explicitly defines Claim 4 such that "the communication means can provide an instructor's station with the ability to view the educational information displayed at the monitor means on any of said student's stations apparently happening at the same time and without interfering (i.e., in conjunction) with each other." This construction is supported by the specification. "If the teacher's station is equipped with a single monitor, she would be able to select which student's work to view just by touching an image (or "icon") on her monitor from the front. Because all students activity is transmitted to the teacher's station as that activity occurs, the image of the newly selected student's work will immediately appear at the teacher's display." Exhibit A at col. 2, line 65-col. 3, line 3. "The teacher can transmit the image from one student, to the whole class, or to a subset of the entire class." Id., col. 2, line 55-57. "[T]he teacher may view the work of and

communicate with several students simultaneously." Id., col. 3, line 20-22-57. Thus, as TeraGlobal's claim interpretation suggests, the teacher can view any students' educational information as that activity occurs and without interfering with other students' activities.

The Court should adopt TeraGlobal's claim construction of Claim 4 because it is supported by the specification.

D. CLAIM 5. "The system of claim 4, wherein said instructor's station's monitor means is selectively controlled by the user implementing icons on said monitor."

TeraGlobal agrees that the use of screen icons is well known and understood. Thus, this claim as it relates to the term "icons" is not disputed.

E. CLAIM 6. "The system of claim 2, wherein said communication means selectively affords said instructor's station to virtually simultaneously and concurrently transmit said information being handwritten at said instructor's station to all of said monitor means at all of said students' stations."

Once again, Plaintiff provides no support for its proposed claim construction. Plaintiff states that Claim 6 means "The controlling participant can select which other participant's view the controller's screen."

TeraGlobal's construction is more appropriate. TeraGlobal's construction requires that the information be both educational and handwritten as contemplated by the claim language. TeraGlobal contends that Claim 6 means that "the communication means can provide an instructor's station the ability to choose to transmit the educational information being written by hand at the instructor's station to the monitor means at all of said student's stations apparently at the same time and without interfering (i.e., in conjunction) with each other." TeraGlobal's construction is therefore consistent with the patent's teaching.

Thus, TeraGlobal requests that the Court adopt its claim construction of Claim 6.

F. CLAIM 7. "The system of claim 1, wherein said communication means includes a communication network, and further includes a central processing unit and bus interface, located at each of said stations, which is in data communication with said communication network."

Once again, Plaintiff provides no support for its proposed claim construction. Plaintiff states that Claim 7 means "A communication network is commonly accepted to be selectable from a LAN, a WAN, the Internet of the World Wide Web and includes any form of data transmission or communication. The selection is simply a matter of design choice. Each form of communication network has its own "bus interface" e.g. 100/10base T for LAN, 802.11 for wireless, RJ11 or modem for WWW etc. All commonly known and understood." (emphasis added). However, this construction improperly broadens the scope of Claim 7 beyond that which is supported by the specification of the '520 patent.

TeraGlobal defines these terms by its meaning as contemplated by the ordinary dictionary definition. A "communications network" means a network for communication. A "central processing unit" or CPU means the unit of a computing system that contains the circuits that control and perform the execution of instructions. See Exhibit D at 2 A "bus" means one or more conductors used for transmitting signals or power. See Exhibit F at 5. An "interface" means a shared boundary between two functional units, defined by functional characteristics, common physical interconnection characteristics, signal characteristics, and other characteristics as appropriate. See id., at 6. "Data" means any or all facts, numbers, letters and symbols that refer to or describe an object, idea, condition, situation, or other information which can be processed or produced by a computer. See Exhibit D at 4. All these terms are defined by their commonly understood dictionary meaning.

Thus, TeraGlobal requests that the Court adopt its claim construction of Claim 7.

G. CLAIM 8. "The system of claim 1, wherein at least one of said input means includes a hand-held stylus for inputting free-style handwritten text and drawings."

TeraGlobal agrees with Plaintiff's statement that Claim 8 is narrower than claim 1 because a stylus is specifically recited. TeraGlobal also agrees that a stylus has a well understood meaning.

H. CLAIM 9. "The system of claim 8, wherein said stations include more than two remotely-located stations, and wherein said input means include more than two input means for simultaneously and concurrently entering said handwritten information in freehand form from said more than two stations."

Once again, Plaintiff provides no support for its proposed claim construction. Plaintiff states that Claim 9 means "The collaboration system of this claim must allow sessions with at least three participants each with an input means as above." TeraGlobal agrees with Plaintiff only as to the meaning of "more than two." Otherwise, TeraGlobal's claim construction position does not differ from its arguments as it is previously recited in Claim 1 as to the claim terms in dispute, i.e., "station", "simultaneously and concurrently", "handwritten", and "freehand". The only difference is that Claim 9 is narrower than claim 1 because it specifically states that the stations must include "more than two."

I. CLAIM 10. "The system of claim 1, wherein said communication means includes means for transmitting one pixel of said information being entered simultaneously and concurrently at either of said input means from either station to the other station on a pixel-by-pixel basis from alternating stations."

The parties appear to agree that Claim 10 is narrower than the broader recitation of information recited in Claim 1. But, Plaintiff fails to recognize that Claim 10 recites means-plus-function claim language. TeraGlobal contends that the phrase "means for transmitting" is in means-plus-function format and should be interpreted under 35 U.S.C. § 112, paragraph 6. Here,

the phrase "means for" is modified by functional language. The function is "transmitting one pixel of said information being entered simultaneously and concurrently at either of said input means from either station to the other station on a pixel-by-pixel basis from alternating stations." Thus, the court should limit the phrase in light of and consistent with the written description of the invention disclosed in the '520 patent.

The specification does not disclose sufficient structure for "means for transmitting." To the extent that the specification discloses any structure at all, it is believed that the corresponding structure is some unspecified combination of the following: a data bus 218, serial cabling, or network cabling 273, 274, three concurrently operating communication systems 301, 332, 333 at a single user station (either teacher or student), and a queue.

Thus, TeraGlobal requests that the Court adopt its claim construction of Claim 10 as it more distinctly points out that the claim requires means-plus-function limitations.

J. CLAIM 11. "The system of claim 1, wherein said communication means includes means for enabling the display of one pixel of said information being entered simultaneously and concurrently at either of said input means from either station to the other station on a pixel-by-pixel basis from alternating stations."

The parties appear to agree that Claim 11 is narrower than the broader recitation of information recited in Claim 1. But, Plaintiff fails to recognize that Claim 11 recites means-plus-function claim language. TeraGlobal contends that the phrase "means for enabling" is in means-plus-function format and should be interpreted under 35 U.S.C. § 112, paragraph 6. The function is "for enabling the display of one pixel of said information being entered simultaneously and concurrently at either of said input means from either station to the other station on a pixel-by-pixel basis from alternating stations." Thus, the court should limit the phrase in light of and consistent with the written description of the invention disclosed in the '520 patent.

The specification does not disclose sufficient structure for "means for enabling." To the extent that the specification discloses any structure at all, it is believed that the corresponding structure is some unspecified combination of a data bus (218), serial cabling, or network cabling 273, 274, three concurrently operating communication systems 301, 332, 333 at a single user station (either teacher or student), and a queue.

Thus, TeraGlobal requests that the Court adopt its claim construction of Claim 11 as it more distinctly points out that the claim requires means-plus-function limitations.

K. CLAIM 12. "The system of claim 1, wherein said communication means includes means for queuing said information being simultaneously and concurrently transmitted from either station to the other station."

The parties appear to agree that Claim 12 is narrower than the broader recitation of information recited in Claim 1. But, Plaintiff fails to recognize that Claim 12 recites means-plus-function claim language. TeraGlobal contends that the phrase "means for queuing" is in means-plus-function format and should be interpreted under 35 U.S.C. § 112, paragraph 6. The function is "for queuing said information being simultaneously and concurrently transmitted from either station to the other station." Thus, the court should limit the phrase in light of and consistent with the written description of the invention disclosed in the '520 patent.

Although, Plaintiff states that queuing is described in the specification as it is generally understood in the art, the specification does not disclose sufficient structure for "means for queuing." To the extent that the specification discloses any structure at all, it is believed that the corresponding structure is a queue. Thus, the parties also appear to agree that the structure is a queue for sending and receiving information.

Thus, TeraGlobal requests that the Court adopt its claim construction of Claim 12 as it more distinctly points out that the claim requires means-plus-function limitations.

IV. TERAGLOBAL'S CLAIM CONSTRUCTION IS NOT PRECLUDED BY THE DOCTRINE OF CLAIM DIFFERENTIATION

TeraGlobal's claim construction is not precluded by the doctrine of claim construction. The "doctrine of claim differentiation" presumes that two claims in the same patent will not have identical scope, but instead, that there is likely an intended difference in scope between the two claims. SRI International v. Matsushita Elec. Corp., 775 F.2d 1107 (Fed. Cir. 1985) (in banc) (explaining that when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim); Karlin Technology Inc. v. Surgical Dynamics, Inc., 177 F.3d 968 (Fed. Cir. 1999) (explaining that the doctrine of claim differentiation "normally means that limitations stated in dependent claims are not to be read into the independent claim from which they depend"). This presumption is especially strong where there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims. Ecolab Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375 (citation omitted). In effect, the doctrine precludes a reading of those limitations into the claim. Liatram Corp. v. Cambridge Wire Cloth Co., 863 F.2d 855 (Fed. Cir. 1988).

When interpreting an asserted claim, the courts start with the language of the asserted claim itself. Kraft Foods, Inc. v. International Trading Co., 203 F.3d 1363, 1366 (Fed. Cir. 2000). The claim term is given its ordinary meaning unless the specification and prosecution history provide a special, different meaning or definition. See Kraft, 203 F.3d at 1366. However, the claims can not be broadened beyond their correct scope. See id., 203 F.3d at 1368.

The doctrine of claim differentiation also presumes a difference in scope when different words or phrases are used in separate claims and that difference between claims is significant." Tandon Corp. v. U.S. Int'l Trade Comm'n, 831 F.2d 1017, 1023 (Fed. Cir. 1987). A superfluous

dependent claim is presumptively unreasonable. See TurboCare Division of Demag Delaval Turbomachinery Corp. v. General Electric Co., 264 F.3d 1111 (Fed. Cir. 2001); Beachcomers v. Wildewood Creative Prods., Inc., 31 F.3d 1154, 1162 (Fed. Cir. 1994). However, where the prosecution history suggests limiting the claims, one can not interpret the claim to be broader than what is contained in the specification and claims as filed. Tandon, 831 F.2d at 1024 citing Autogiro Co. of America v. United States, 384 F.2d 391, 397 (Ct. Cl. 1967).

A. "Handwritten freehand form"

Plaintiff contends that TeraGlobal has limited the phrase "handwritten freehand" to "a hand-held stylus." Additionally, Plaintiff contends that TeraGlobal has also imported limitations from Claims 13, 17, 24 and 25 into Claim 1. In short, according to Plaintiff, TeraGlobal's narrow reading of the phrase "handwritten freehand" is precluded by the doctrine of claim differentiation.

The Plaintiff interprets the Federal Circuit's holding in RF Delaware, Inc., v. Pacific Keystone Technologies, Inc., 02-1508 CAFC, 2003 U.S. App. LEXIS 7450, (April 21, 2003), of claim differentiation as a "hard and fast rule of construction." However, that the claims are presumed to differ in scopes does not mean that every limitation must be distinguished from its counterpart in another claim, but only that at least one limitation must differ. Kraft, 203 F.3d at 1368.

In this respect the courts have construed claims in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification. Liatram Corp., v NEC Corp., 62 F.3d 1388, 1392 (Fed. Cir. 1995) ("Although each claim is an independent invention, dependent claims can aid in interpreting the scope of claims from which they depend"); Roll Systems, Inc. v. Wallace Computer Services, Inc., 901 F.Supp. 389 (D. Mass. 1995) (ordinary

meaning of "retractable" is not altered by the specification or prosecution history and is confirmed by other, dependent claims).

TeraGlobal has not limited the recitation of "handwritten freehand" to "a hand-held stylus" as Plaintiff contends. The very limitations that TeraGlobal has read into Claim 1 are necessary to the scope of Claim 1 and is not such an interpretation that leaves any dependant claims redundant or meaningless. As stated above, TeraGlobal contends that the term "handwritten freehand form" of Claim 1 means a form which is written by hand without the aid of tracing or drafting devices. Claim 8 is the only dependent claim that requires a hand-held stylus for inputting free-style handwritten text and drawings. However, TeraGlobal's claim construction is not so narrow. Claim 1 contemplates the following devices capable of performing the functional of a handwriting device, i.e., a corded or cordless light pen, a pen-like object, a pen, and a stylus. Thus, TeraGlobal has not rendered any dependant claims superfluous, but has construed the phrase "handwritten freehand" in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification.

B. Virtually simultaneous

Each claim in a patent is presumptively different. Claim 1 is the only independent claim asserted by Plaintiff. In its simplest form, Claim 1 has: (1) at least two stations; (2) at least two monitor means; (3) at least two input means; (4) a communication means for transmitting from either station to other station; and (5) a communication means for enabling the transmitted educational information from both stations such that it appears on all of said monitor means while under the independent control of the first input means.

Claim 10 differs from Claim 1 because it adds a limitation to the fourth element of Claim 1. The communication means for transmitting is <u>transmitted</u> one pixel at time at either of said

input means from either station to the other station on a pixel-by-pixel bases from alternating stations. Thus, the means for transmitting is not necessarily under the independent control of the first input means as required by Claim 1. And TeraGlobal's proposed claim construction of "virtually simultaneous" is not rendered meaningless because Claim 10 presents another limitation that was not read into Claim 1.

Claim 11 differs from Claim 1 because it adds a limitation to the fifth element of Claim 1. The communication means for enabling the display is enabled to be displayed one pixel at time at either of said input means from either station to the other station on a pixel-by-pixel bases from alternating stations. Thus, the means for enabling is not necessarily under the independent control of the first input means as required by Claim 1. And TeraGlobal's proposed claim construction of "virtually simultaneous" is not rendered meaningless because Claim 10 presents another limitation not read into Claim 1.

Plaintiff claims that the phrase "simultaneously and concurrently communicating said information in real time" of Claim 13 is different in scope from "virtually simultaneously and concurrently" of Claim 1. TeraGlobal submits that these two claims that read differently can cover the same subject matter. Patent practice has long recognized that "claims may be multiplied … to define the metes and bounds of the invention in a variety of different ways." Tandon, 831 F.2d at 1023 quoting Bourns, Inc. v. United States, 537 F.2d 486, 492, aff'd per curiam, 199 U.S.P.Q. 256 (Ct. Cl. 1976).

Plaintiff admits simultaneous transmission or display is not an object of the invention. Plaintiff's Opening Brief at 3. The important aspect of the invention is that the communication appear at the same time. Thus, the claims can not be broadened beyond their correct scope.

Claim 13 differs from Claim 1 in two aspects of the invention. Claim 13 requires a peripheral interface and the communication means for enabling the transmitted educational information from both stations such that it appears on all of said monitor means such that each user has independent control of that portion of the image information drawn or written by that user. Thus, the scope of these two independent claims differ in at least two aspects of the invention, a peripheral interface and information drawn. Claims 18 and 23 must also differ in at least these two aspects.

Plaintiff also claims that the phrases "simultaneously and concurrently communicating" and "simultaneously and concurrently display" of Claim 24 is different in scope that the phrase "virtually simultaneously and concurrently" of Claim 1. TeraGlobal submits that Claim 24 differs in scope from Claim 1 because Claim 24 requires at least two remotely-located user stations, an interactive monitor means, and a network communication means. Claim 28 must also differ in at least these three aspects.

The phrase in dispute, "virtually simultaneously and concurrently", should not given a broader meaning because these two claims that read differently can cover the same subject matter and also cover different subject matter.

V. CONCLUSION

For the foregoing reasons, this Court should not adopt Plaintiff's proposed overly broad claim construction but should afford the claims their proper scope as defined by TeraGlobal.

Respectfully submitted,

Date: May 23, 2003

/s/

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